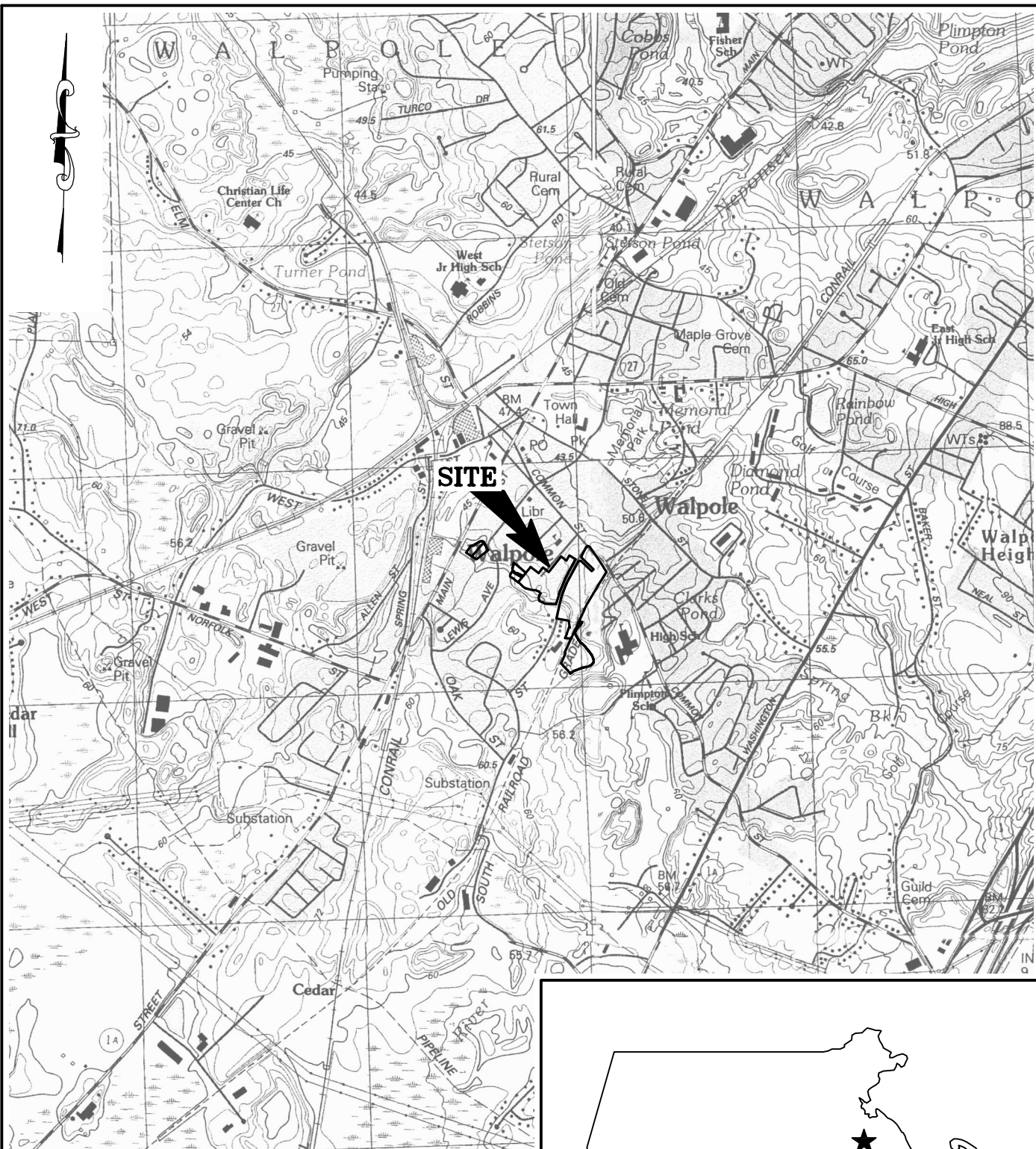


## FIGURES



BASE MAP TAKEN FROM 7.5 MINUTE  
USGS QUADRANGLE MAP:  
MEDFIELD, MASSACHUSETTS (1987)  
NORWOOD, MASSACHUSETTS (1985)

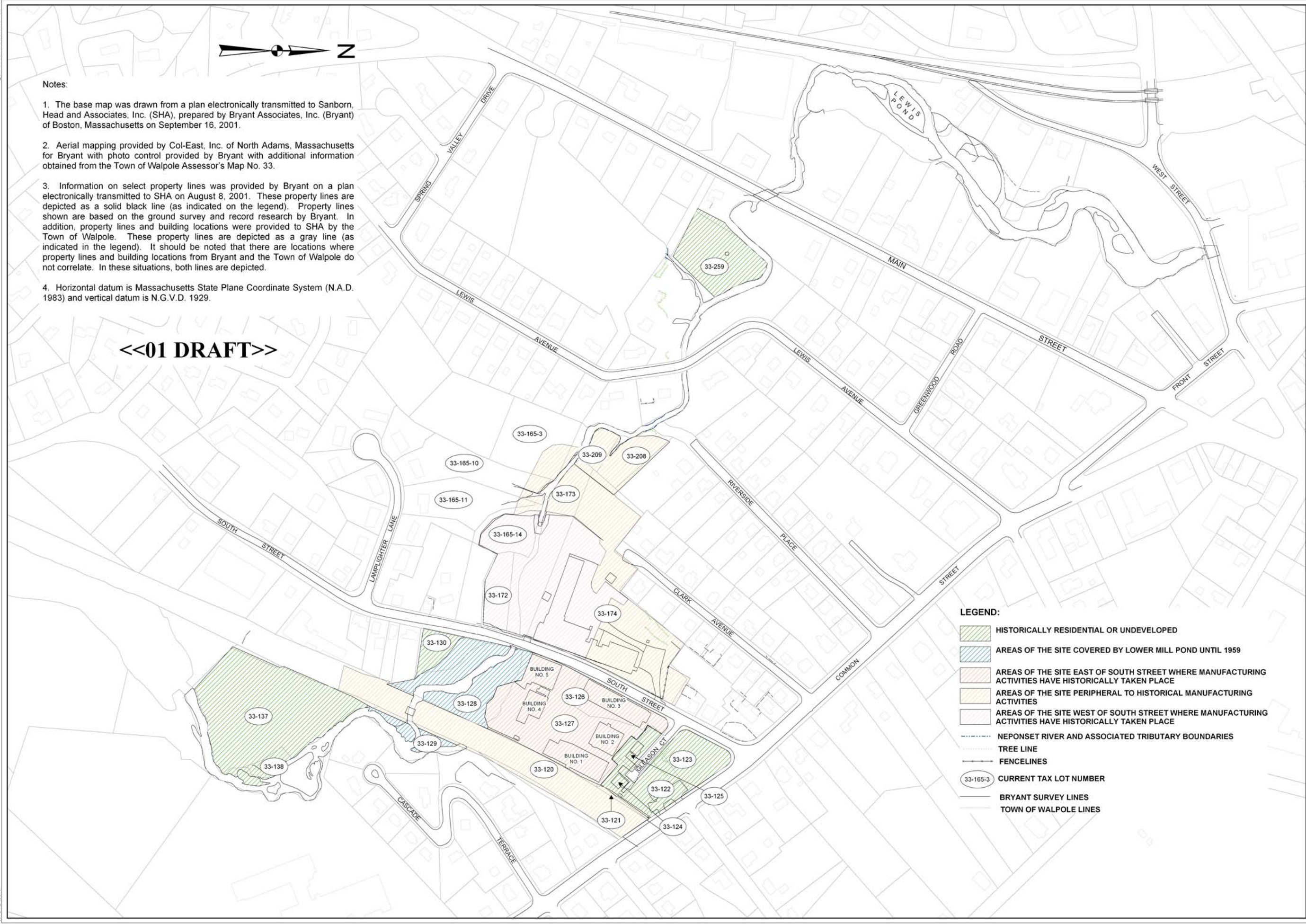


**<<01\_DRAFT>>**



## LOCUS PLAN

FIGURE NO.1


[illegible]


1. The underground culvert was located and marked in the field by Hager-Richter Geoscience, Inc (HRGI) of Salem, New Hampshire using ground penetrating radar (GPR). The marked locations were surveyed by Bryant Associates, Inc. (Bryant) of Boston Massachusetts..

3. Tank information for dates prior to 1959 was obtained from historical Sanborn Fire Insurance maps from dates indicated. The USTs and ASTs were likely in existence both before and after dates indicated.

5. Refer to Figure 2 for additional notes and legend and the text and table of this report, as well as the "Existing Data Review and Analysis Report," prepared by SHA, dated January 2000 for additional information.

### LEGEND

 SOIL-CAPPED PORTION OF AREA OF CONTAINMENT (AOC-RESTRICTED AREA).

 ASPHALT-CAPPED PORTION OF AOC. NOTE THAT AN AREA OF EXPOSED ROCK IN THE NORTHEASTERN PORTION OF THIS AREA, A CONCRETE VAULT NORTH OF THE FORMER MILL BUILDING AND THE "BRICK BUILDING" SOUTH OF THE FORMER MILL BUILDING ARE NOT INCLUDED IN THE AOC.

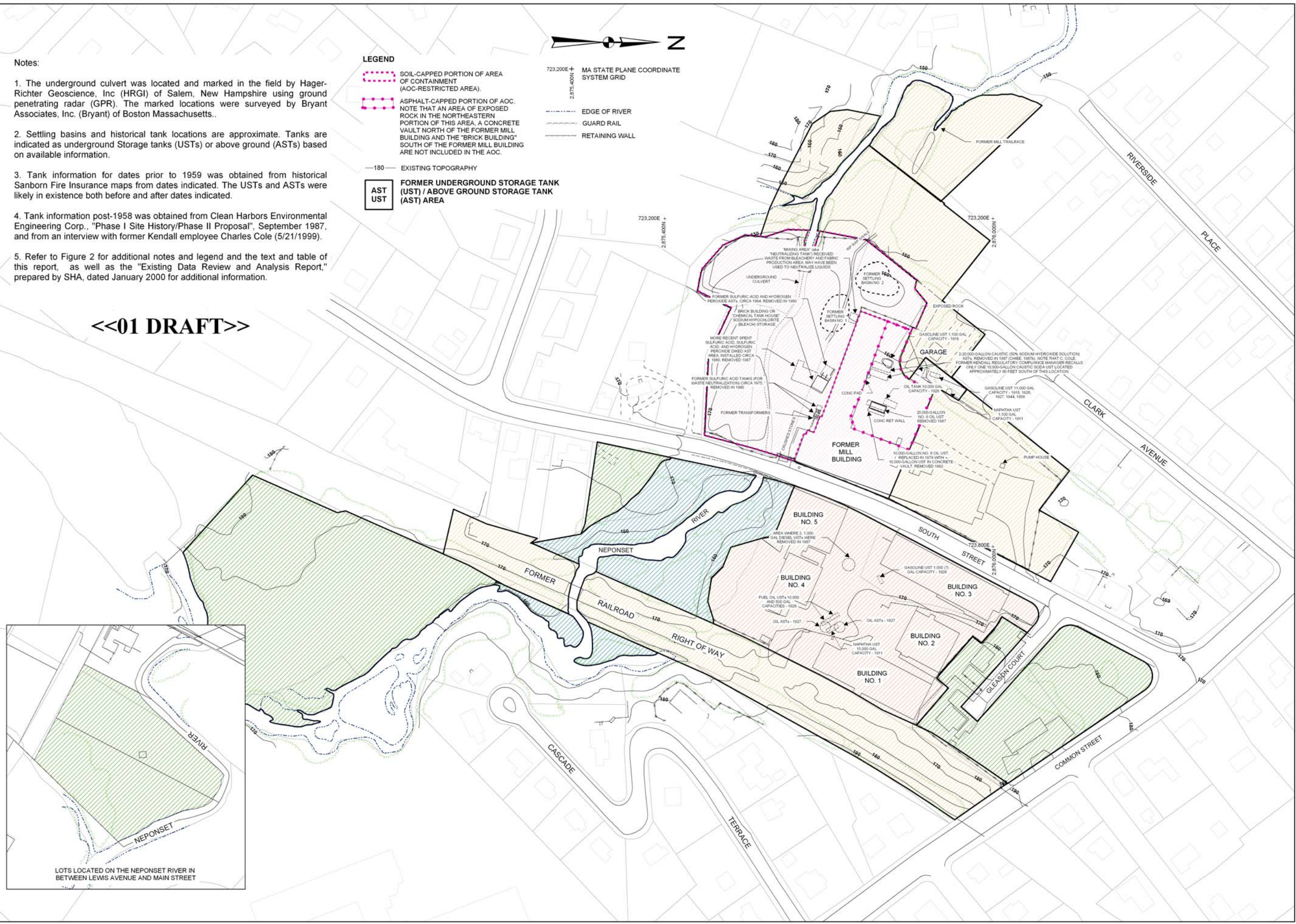
—180— EXISTING TOPOGRAPHY

AST  
UST

FORMER UNDERGROUND STORAGE TANK  
(UST) / ABOVE GROUND STORAGE TANK  
(AST) AREA

723,200E+ MA STATE PLANE COORDINATE  
NAD83 SYSTEM GRID

 EDGE OF RIVER  
 GUARD RAIL  
 RETAINING WALL



LOTS LOCATED ON THE NEPONSET RIVER IN  
BETWEEN LEWIS AVENUE AND MAIN STREET

A graphical scale bar labeled "GRAPHICAL SCALE" with tick marks and labels at 50, 0, 50, 100, 150, and 200 Feet.



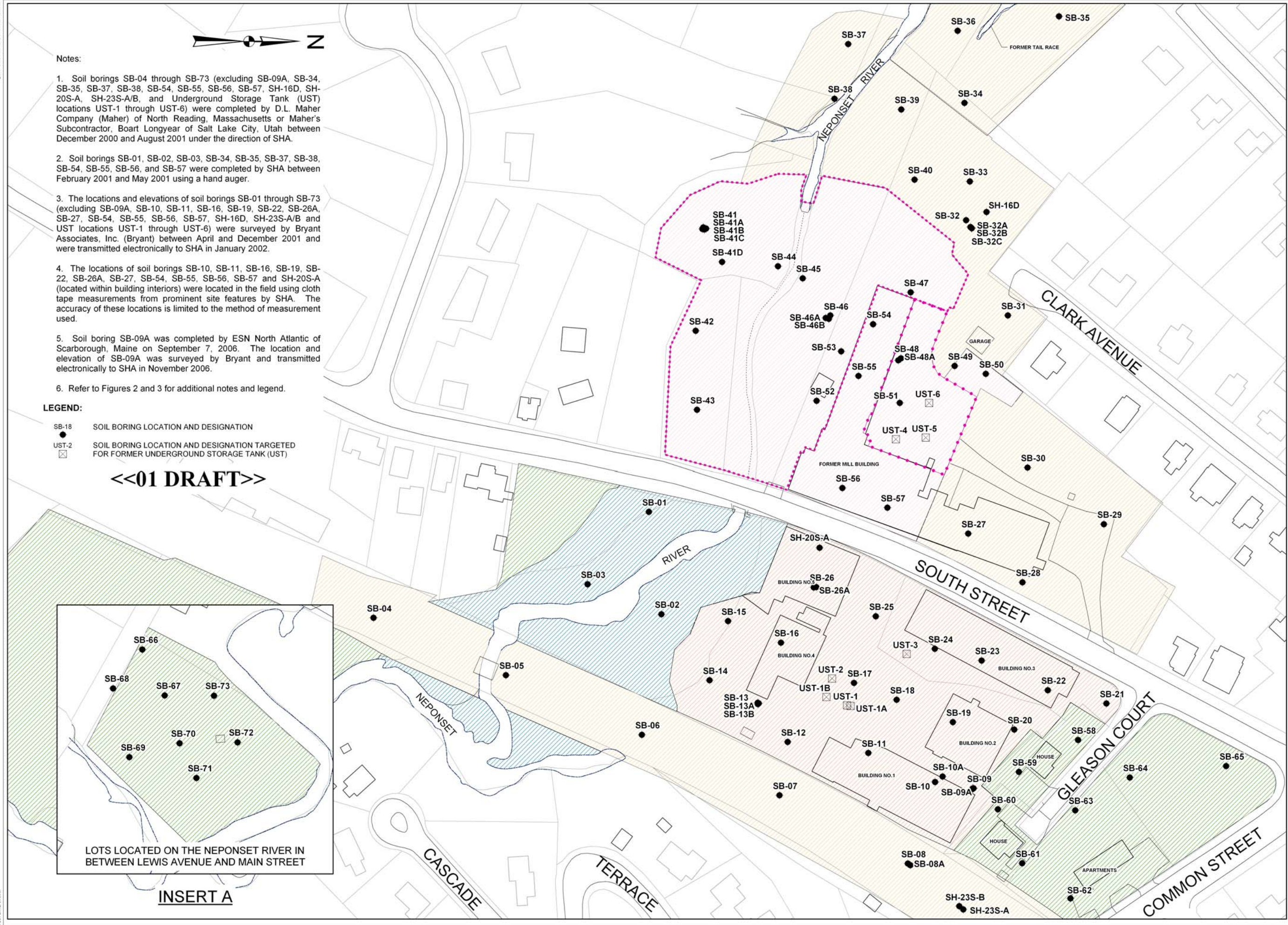
DRAWN BY: SJR/LJK  
DESIGNED BY: SJR/LJK  
CHECKED BY: TMW/BAG  
REVIEWED BY: CLH/CAC  
PROJECT MGR: BAG  
PIC: CLH  
DATE: APR 07

**ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT -  
PHASE IB-4 / PHASE IB-5 INVESTIGATIONS  
BLACKBURN & UNION PRIVILEGES SUPERFUND SITE  
WALPOLE, MASSACHUSETTS**

## SITE FEATURES PLAN

PROJECT NUMBER :	2032
------------------	------

FIGURE NUMBER : 3

[illegible]

1. Monitoring wells SH-1S/D/R through SH-23S were completed by D.L. Maher Company (Maher) of North Reading, Massachusetts or Maher's subcontractor Boart Longyear of Salt Lake City, Utah between December 2000 and August 2001 with observation by Sanborn, Head & Associates, Inc. (SHA).

2. Staff gauges SG-101 through SG-110 were established by SHA in February and March 2001. Staff gauges SG-111, SG-112, and SG-113, and SG-114 were established by SHA in October and December 2001, respectively.

3. Monitoring wells SH-17D/R and SH-24S/R through SH-28S/D/R were completed by Environmental Drilling, Inc. of Sterling, Massachusetts between August 2003 and November 2003 with observation by SHA.

4. Well points WP-01 through WP-07 were installed manually by SHA personnel between September 8 and 10, 2003.

5. The locations and elevations of staff gauges SG-101 through SG-113 were surveyed by Bryant Associates, Inc. of Boston, Massachusetts (Bryant) between April and December 2001 and were transmitted electronically to SHA in January 2002. Well points WP-01 through WP-07 and monitoring wells SH-17D/R and SH-24S/R through SH-28S/D/R were surveyed by Bryant between October and November 2003 and were submitted electronically to SHA in November 2003.

6. The location of SG-114 was located in the field using cloth tape measurements from the downstream end of the Neponset River culvert by SHA. The accuracy of this location is limited to the method of measurement used.

7. On September 9, 2006 SHA installed replacement staff gauges SG-101B, SG-105B, SG-108B, and SG-111B. The replacement staff gauges were surveyed by Bryant on January 16, 17, and 18, 2007. Additionally, Bryant conducted an elevation survey check of several well point and staff gauge locations that were suspected of potential movement since their initial installation. Changes in the reference elevations were recorded in the project database.

8. Staff gauges indicated are locations where surface water elevations were measured in 2006. Refer to Figure 5 of the Remedial Investigation Report for locations of other staff gauges.

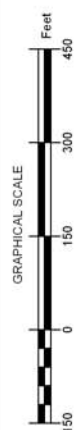
9. Refer to Figure 3 for additional notes and legend.

SG-111	STAFF GAUGE LOCATION AND DESIGNATION
SH-23S	MONITORING WELL LOCATION AND DESIGNATION
WP-02	WELL POINT LOCATION AND DESIGNATION

**<<01 DRAFT>>**

[illegible]

**<<01 DRAFT>>**



SHA  
ENGINEERS • SCIENTISTS

DRAWN BY: SJR  
DESIGNED BY: PGP/SJR  
CHECKED BY: TMW/BAG  
REVIEWED BY: CLW/CAC  
PROJECT MGR: CLW  
PIC: PMS  
DATE: APR 07

## ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE IB-4 / PHASE IB-5 INVESTIGATIONS

WALPOLE, MASSACHUSETTS

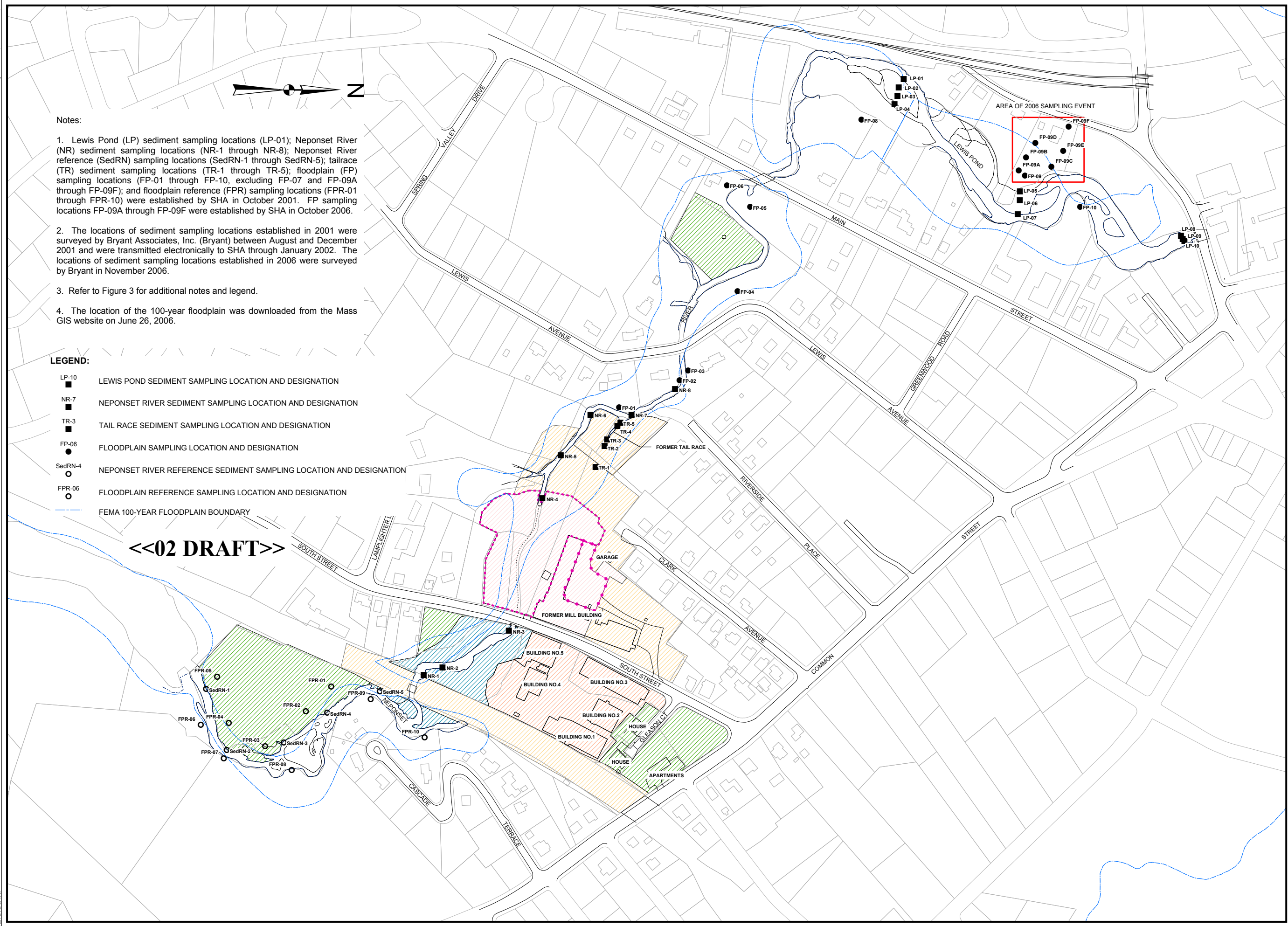
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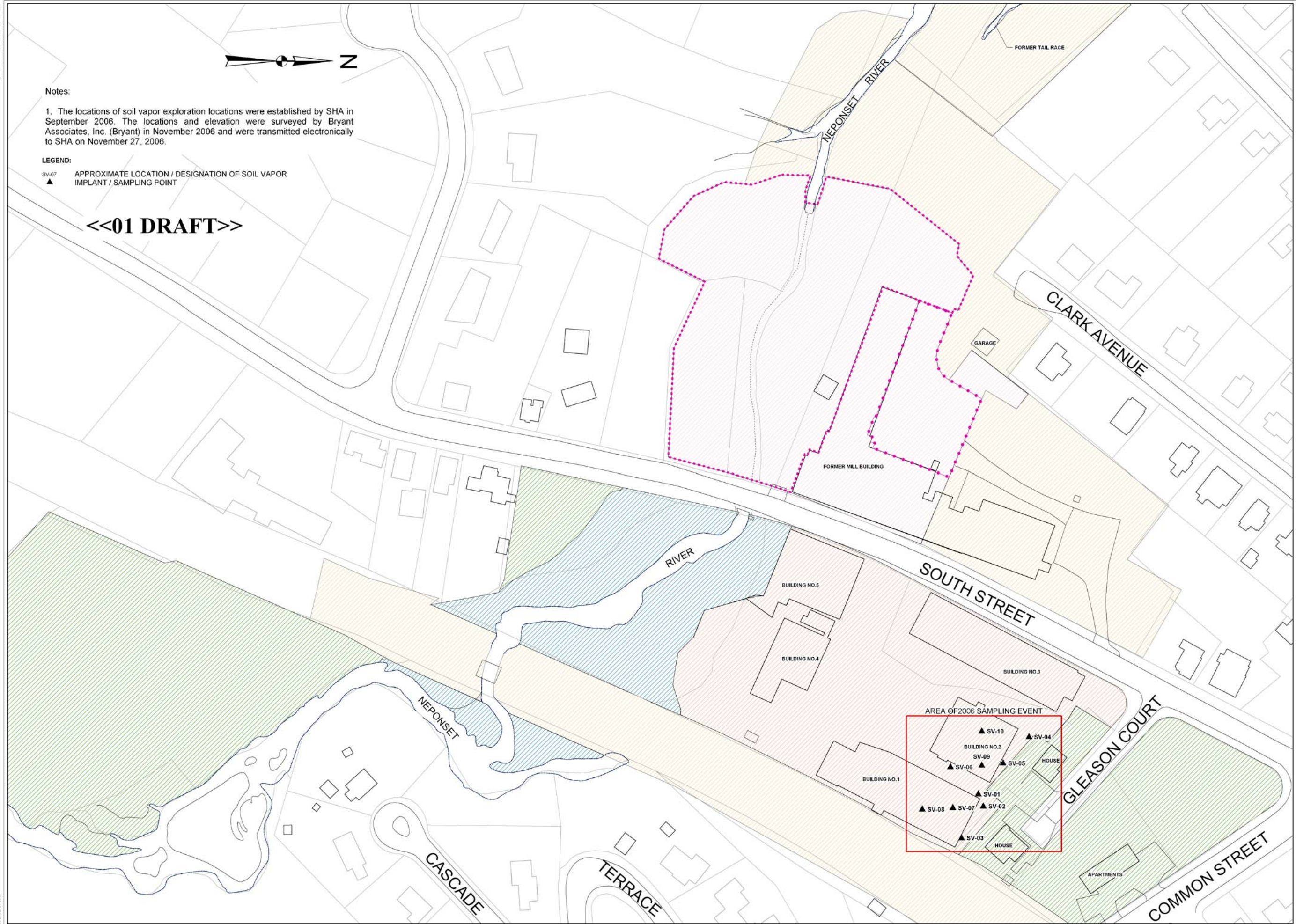
**EXPLORATION LOCATION PLAN**

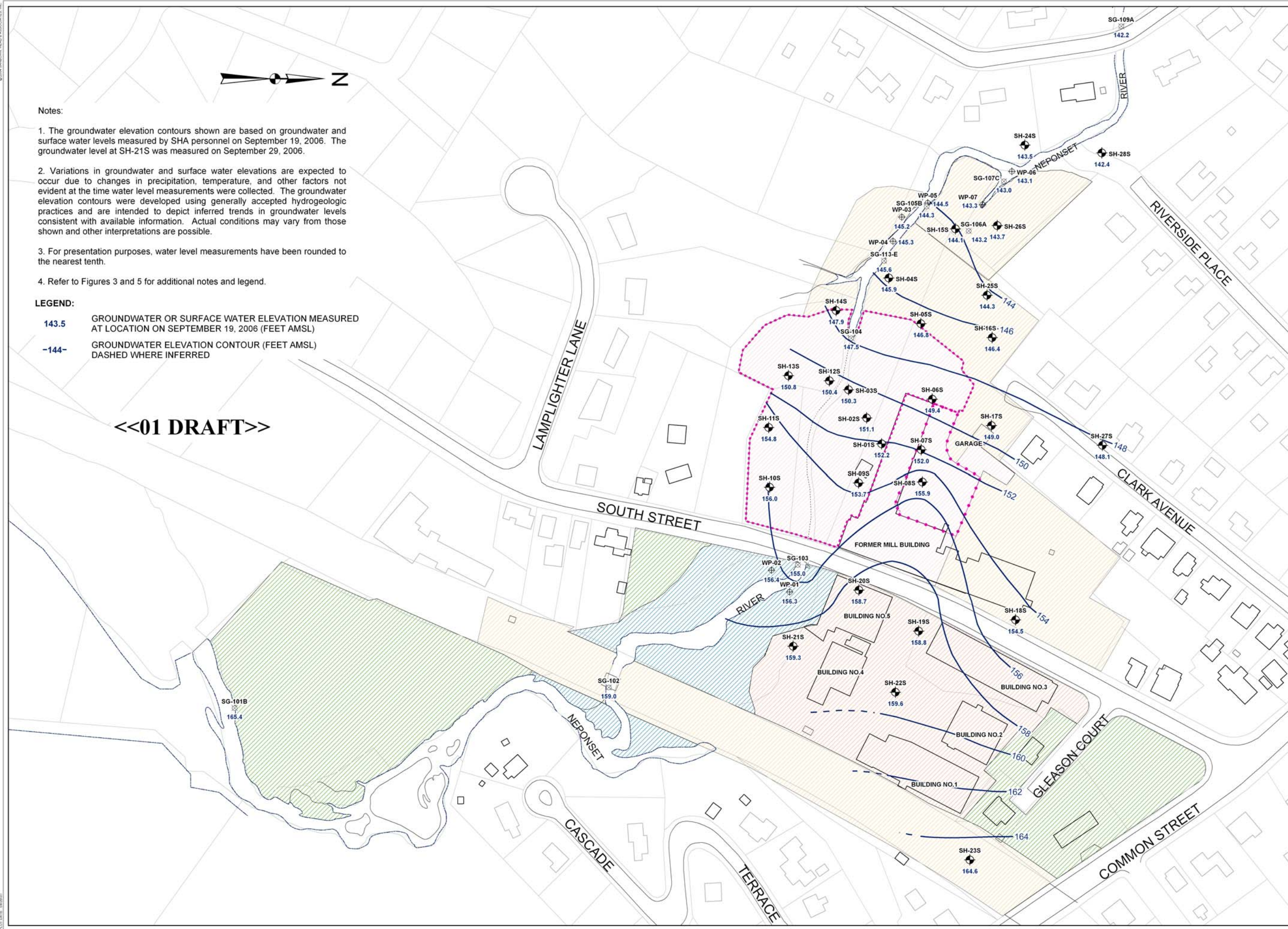
**SURFACE WATER SAMPLING LOCATIONS**

PROJECT NUMBER :	2032
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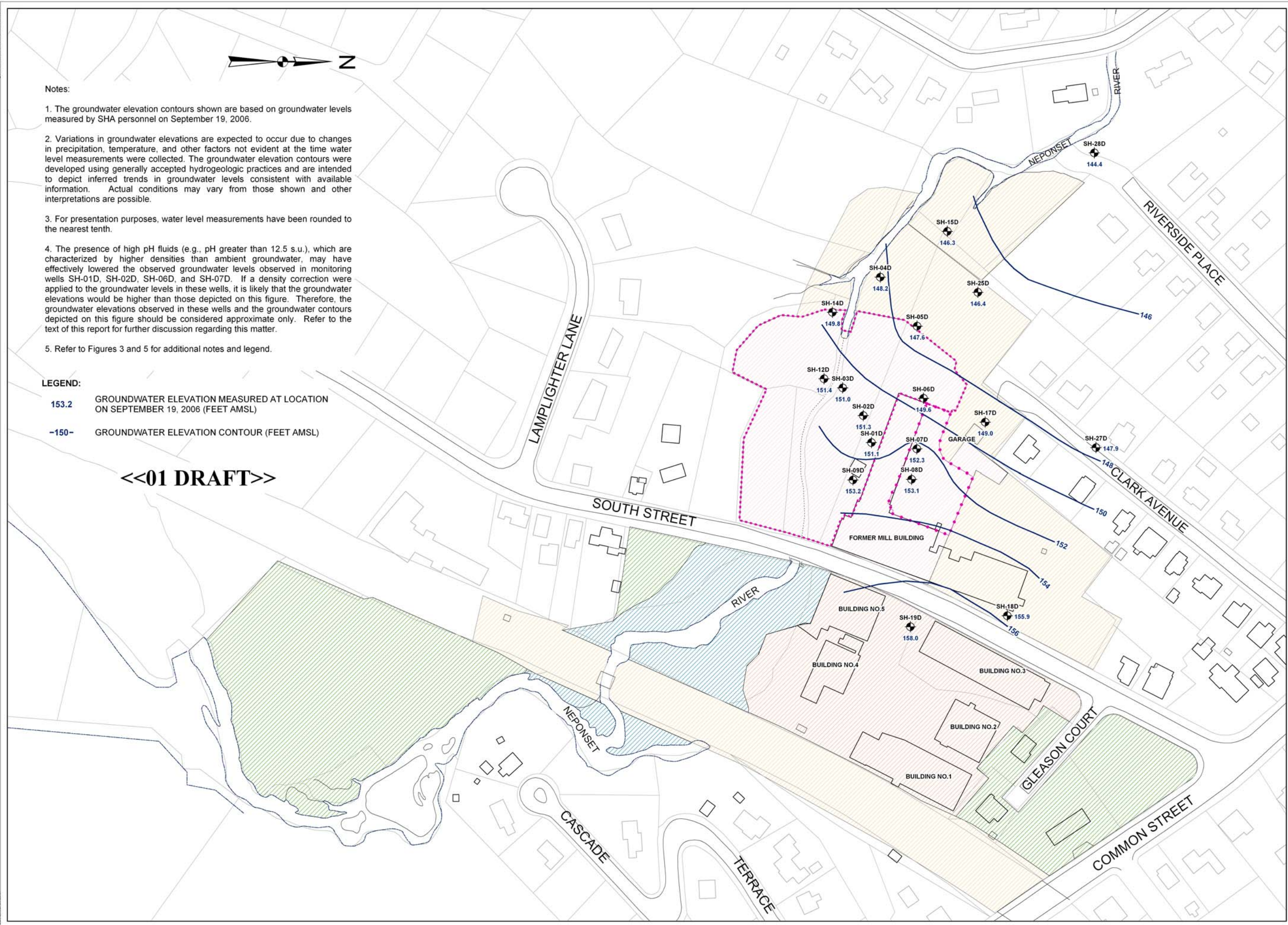
FIGURE NUMBER : 6

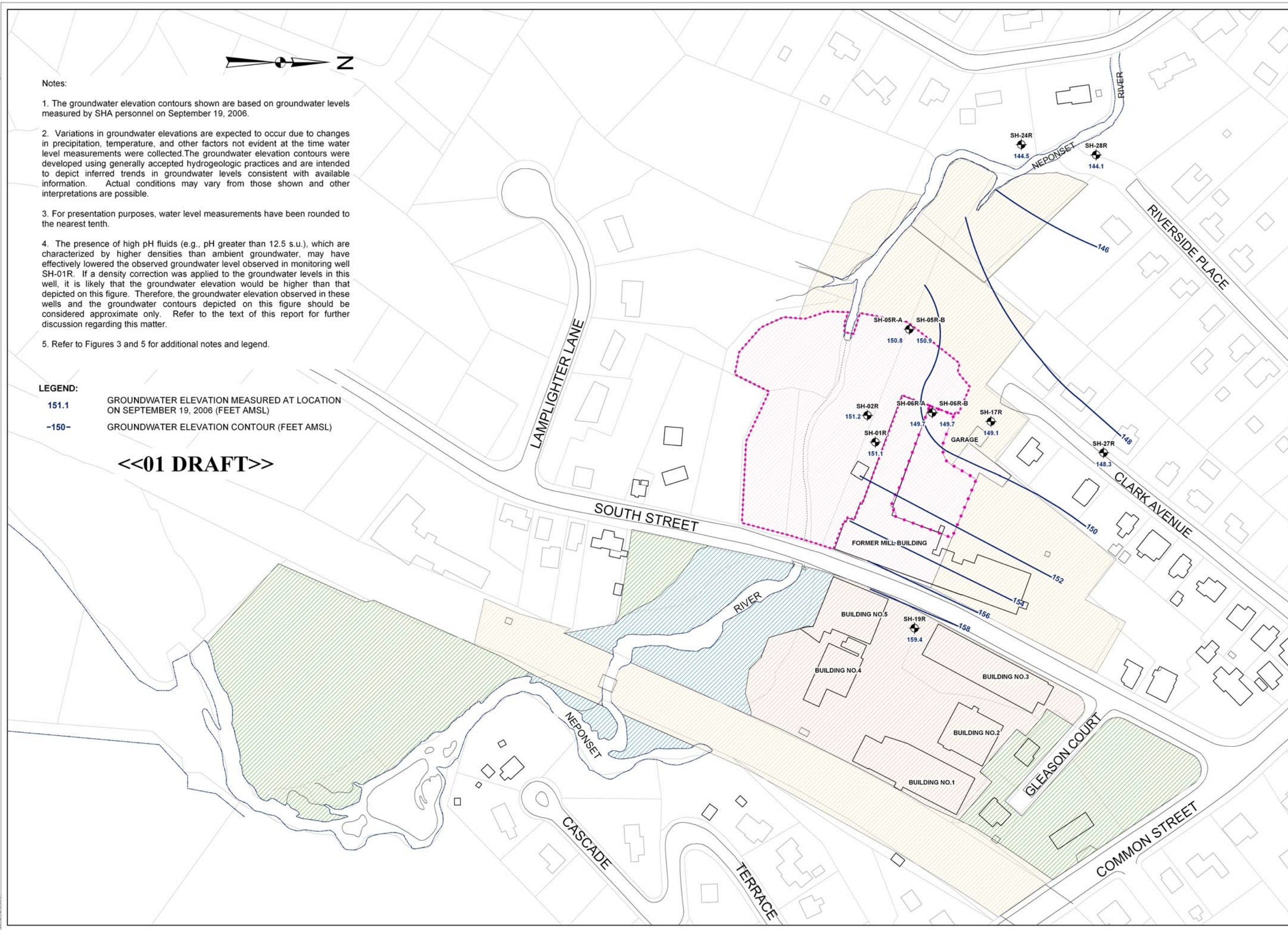
[illegible]

[illegible]



<p><b>ADDENDUM TO REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN &amp; UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS</b></p>		<p><b>SHALLOW GROUNDWATER ELEVATION CONTOUR PLAN - SEPTEMBER 2006</b></p>	
<p>PROJECT NUMBER : <b>2032</b></p>		<p>FIGURE NUMBER : <b>9</b></p>	
<p>DRAWN BY: LK/LAA DESIGNED BY: LK/TMI CHECKED BY: TMI/BAG REVIEWED BY: CLK/CAC PROJECT MGR: BAG PIC: CLK DATE: APR 07</p>		<p>GRAPHICAL SCALE</p> <p>Feet 80 40 0 80 160 240</p>	

[illegible]

[illegible]

LOTS LOCATED ON THE NEPONSET RIVER IN  
BETWEEN LEWIS AVENUE AND MAIN STREET

INSERT A



**NOTES:**


1. The distribution of 2-methylnaphthalene in lower soils (greater than 1 foot below the ground surface) is based on samples collected by SHA personnel between December 7, 2000, August 1, 2001, and on October 7, 2006. Samples were analyzed by Woods Hole Group Environmental Laboratory of Raynham, Massachusetts using United States Environmental Protection Agency (USEPA) Methods 8270C and 8270C-SIM.

2. Refer to figures 4 through 7 for additional notes and legend.

**LEGEND:**

- |         |  |
|---------|--|
| SB-01   | SOIL BORING LOCATION / DESIGNATION   |
| UST-4   | SOIL BORING LOCATION / DESIGNATION TARGETED FOR FORMER UNDERGROUND STORAGE TANK (UST)  |
| SH-18S  | GROUNDWATER MONITORING WELL LOCATION / DESIGNATION WHERE A SOIL SAMPLE WAS TAKEN   |
| 2,300   | DETECTED CONCENTRATION OF 2-METHYLNAPHTHALENE (UG/KG)  |
| (3,300) | THE DETECTED CONCENTRATION OF 2-METHYLNAPHTHALENE IN THE DEEPER SOIL SAMPLE AT BORING LOCATIONS WHERE MORE THAN ONE SAMPLE WAS COLLECTED (UG/KG) |
| ND      | NOT DETECTED IN SAMPLE ABOVE ANALYTICAL REPORTING LIMITS   |

### EXCEEDANCE INDICES

-  SOIL SAMPLE LOCATION EXCEEDING THE MCP METHOD 2 S-1  
SOIL STANDARD FOR DIRECT CONTACT EXPOSURE FOR  
2-METHYLNAPHTHALENE OF 500,000 UG/KG

<p><b>DISTRIBUTION OF 2-METHYLNAPHTHALENE IN LOWER SOILS</b></p>	<p>ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN &amp; UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS</p>	<p>PROJECT NUMBER: <b>2032</b></p> <p>FIGURE NUMBER: <b>12</b></p>	<p>DRAWN BY: LK/LAA DESIGNED BY: LK/LAA CHECKED BY: TM/WBAG REVIEWED BY: CLH/CAC</p> <p>PROJECT MGR: BAG PIC: CLH DATE: APR 87</p>		

1. The distribution of naphthalene in lower soils (greater than 1 foot below the ground surface) is based on samples collected by SHA personnel between December 7, 2000, August 1, 2001 and on September 7, 2006. Samples were analyzed by Woods Hole Group Laboratory of Raynham, Massachusetts using United States Environmental Protection Agency (USEPA) Methods 8270C and 8270C-SIM.

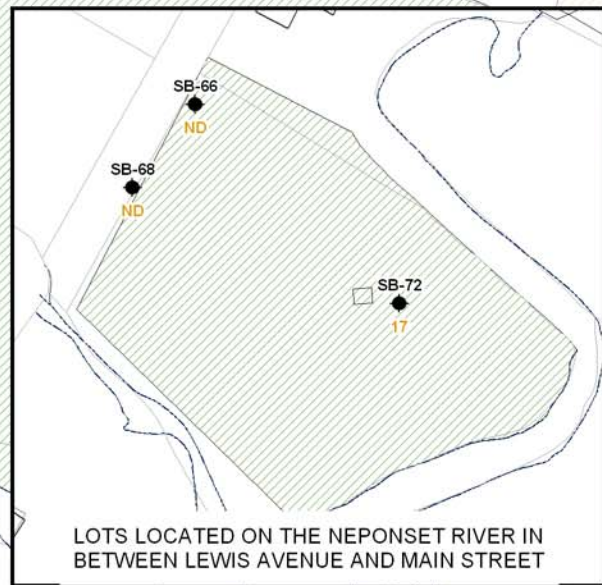
**LEGEND:**

- |         |  |
|---------|--|
| SB-15   | SOIL BORING LOCATION / DESIGNATION   |
| UST-4   | SOIL BORING LOCATION / DESIGNATION TARGETED FOR FORMER UNDERGROUND STORAGE TANK (UST)  |
| SH-18S  | GROUNDWATER MONITORING WELL LOCATION / DESIGNATION WHERE A SOIL SAMPLE WAS TAKEN   |
| 540     | DETECTED CONCENTRATION OF NAPHTHALENE (UG/KG)  |
| (1,400) | THE DETECTED CONCENTRATION OF NAPHTHALENE IN THE DEEPER SOIL SAMPLE AT BORING LOCATIONS WHERE MORE THAN ONE SAMPLE WAS COLLECTED (UG/KG) |
| ND      | NOT DETECTED IN SAMPLE ABOVE ANALYTICAL REPORTING LIMITS   |

 SOIL SAMPLE LOCATION EXCEEDING USEPA REGION IX PRG FOR RESIDENTIAL SOIL FOR NAPHTHALENE OF 5,600 UG/KG

 SOIL SAMPLE LOCATION EXCEEDING THE MCP METHOD 2 S-1 SOIL STANDARD FOR DIRECT CONTACT EXPOSURE FOR NAPHTHALENE OF 100,000 UG/KG

<<01 DRAFT>>



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[illegible]




1. The distribution of trichloroethene in soils is based on samples collected by SHA personnel between December 7, 2000, August 1, 2001 and September 7, 2006. Samples were analyzed by Woods Hole Group Laboratory of Raynham, Massachusetts for volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) Method 8260B.

2. Refer to figures 4 through 7 for additional notes and legend.

**LEGEND:**

- |        |   |
|--------|---|
| SB-01  | SOIL BORING LOCATION / DESIGNATION  |
| UST-4  | SOIL BORING LOCATION / DESIGNATION TARGETED FOR FORMER UNDERGROUND STORAGE TANK (UST)                               |
| SH-18S | GROUNDWATER MONITORING WELL LOCATION / DESIGNATION WHERE A SOIL SAMPLE WAS TAKEN                                    |
| 4,500  | DETECTED CONCENTRATION OF TRICHLOROETHENE (UG/KG)   |
| (ND)   | TRICHLOROETHENE NOT DETECTED IN THE DEEPER SOIL SAMPLE AT BORING LOCATIONS WHERE MORE THAN ONE SAMPLE WAS COLLECTED |
| ND     | NOT DETECTED IN SAMPLE ABOVE ANALYTICAL REPORTING LIMITS  |

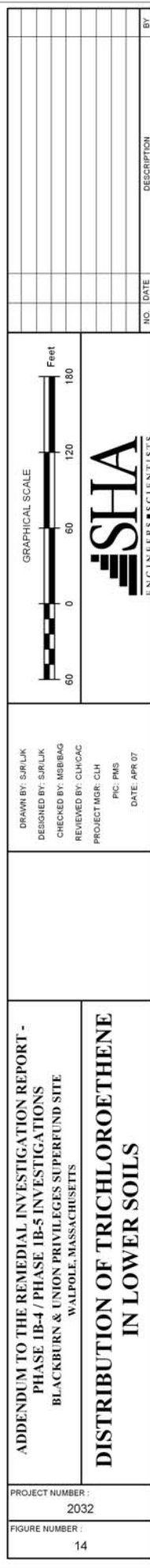
## EXCEEDANCE MARKERS

-  SOIL SAMPLE LOCATION EXCEEDING USEPA REGION IX PRG FOR RESIDENTIAL SOIL FOR TRICHLOROETHENE OF 53 UG/KG  
 SOIL SAMPLE LOCATION EXCEEDING MINIMUM ECOLOGICAL STANDARD FOR TRICHLOROETHENE OF 1,387 UG/KG  
 SOIL SAMPLE LOCATION EXCEEDING THE MCP METHOD 2 S-1 SOIL STANDARD FOR DIRECT CONTACT EXPOSURE FOR TRICHLOROETHENE OF 70,000 UG/KG

**<<01 DRAFT>>**

LOTS LOCATED ON THE NEPONSET RIVER IN  
BETWEEN LEWIS AVENUE AND MAIN STREET

INSERT A



FILE: S:\CONDATA\2001\2002\2003\2006\PH18\Investigation\_Report\_2007\GN\_Chem\_data\pH\pH\_inflow\_071707.mxd  
PAGE: 11  
DATE: 07/17/07



Notes:

1. Up to four rounds of groundwater pH measurements are presented on this figure. Groundwater samples were collected by SHA in September 2001, May 2002, October/November 2003, and September 2006. At each location, a stabilized pH measurement was recorded using a Yellow Springs Instrument, Inc. (YSI) Model 600 XLM or 560 MPS handheld field meter during low flow groundwater sampling in accordance with the standard operating procedures (SOP) for groundwater sampling (SOP-1669F) outlined in the Quality Assurance Project Plan (QAPP). Results are presented in standard units (s.u.).

2. Up to four rounds of surface water pH measurements are presented on this figure. Surface water samples were collected by SHA in March 2001, April 2001, August 2001, and September 2006. At each location, a stabilized pH measurement was recorded using a Yellow Springs Instrument, Inc. (YSI) Model 600 XLM or 560 MPS handheld field meter during surface water sampling in accordance with the standard operating procedures (SOP) for surface water sampling (SOP-1669G) outlined in the QAPP. Results are presented in s.u.

3. The pH isopleths presented on this figure are reflective of the 2006 groundwater and surface water pH measurements, or where samples were not collected during 2006, the most recent previous groundwater or surface water pH measurement. The pH isopleths were developed using generally accepted hydrogeologic practices and are intended to depict inferred trends in pH concentrations consistent with available information. Actual conditions may vary from those shown and other interpretations are possible.

4. See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater and surface water data to the measured maximum concentration from the 2001/2002/2003 groundwater and surface water data.

5. Refer to Figures 2 through 5 for additional notes and legend.

LEGEND:

- SH-01S GROUNDWATER MONITORING WELL LOCATION / DESIGNATION  
WP-02 WELL POINT SAMPLE LOCATION / DESIGNATION  
SW-108 SURFACE WATER SAMPLE LOCATION / DESIGNATION  
SWR-3 SURFACE WATER REFERENCE SAMPLE LOCATION / DESIGNATION
- CONCENTRATION COMPARISON**  
REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.
- SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE**  
2006 GROUNDWATER AND SURFACE WATER  
CONCENTRATION GREATER THAN OR EQUAL TO  
PREVIOUS MAXIMUM CONCENTRATION FOR THE  
2001/2002/2003 DATA
- SAMPLING LOCATIONS SHOWN IN GREEN INDICATE**  
2006 GROUNDWATER AND SURFACE WATER  
CONCENTRATION LESS THAN PREVIOUS MAXIMUM  
CONCENTRATION FOR THE 2001/2002/2003 DATA, OR  
REPORTED CONCENTRATIONS ARE BELOW LABORATORY  
REPORTING LIMITS FOR ALL SAMPLING ROUNDS.
- SAMPLING LOCATIONS SHOWN IN BLACK INDICATE**  
DATA IS INDETERMINATE FROM REPORTING  
LIMITS OR LOCATIONS NOT SAMPLED IN 2006
- INFERRED AREA WITH GROUNDWATER pH GREATER THAN 9.0 (S.U.)**  
BASED ON 2006 DATA (REFER TO NOTE 3)

GROUNDWATER:

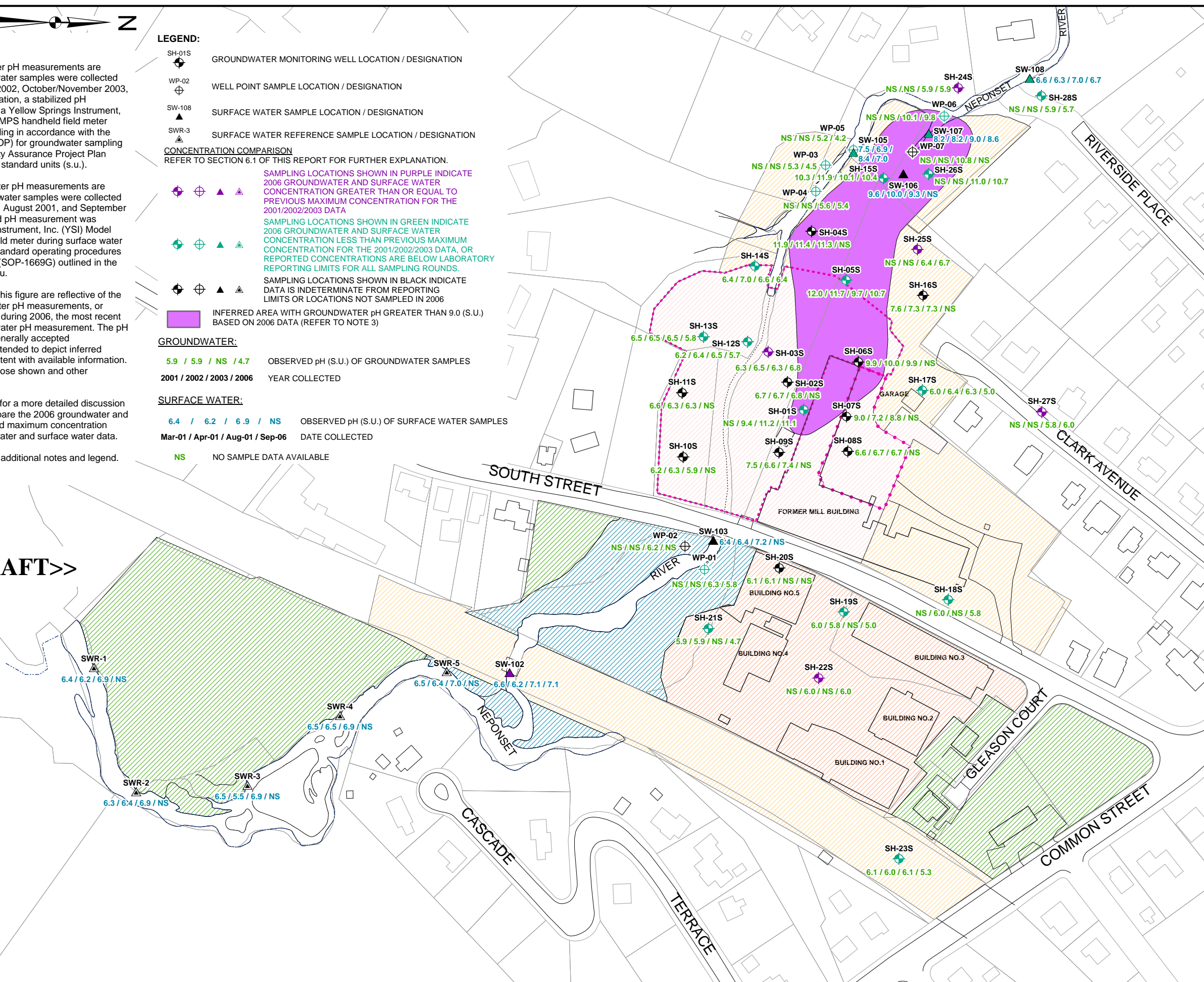
5.9 / 5.9 / NS / 4.7 OBSERVED pH (S.U.) OF GROUNDWATER SAMPLES  
2001 / 2002 / 2003 / 2006 YEAR COLLECTED

SURFACE WATER:

6.4 / 6.2 / 6.9 / NS OBSERVED pH (S.U.) OF SURFACE WATER SAMPLES  
Mar-01 / Apr-01 / Aug-01 / Sep-06 DATE COLLECTED

NS NO SAMPLE DATA AVAILABLE

<<02 DRAFT>>



GRAPHICAL SCALE	
Feet	0 80 160 240
SHA ENGINEERS • SCIENTISTS	
DRAWN BY: LAALIK DESIGNED BY: LAALIK CHECKED BY: TWM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07	
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS	
DISTRIBUTION OF pH IN SHALLOW GROUNDWATER AND SURFACE WATER	
PROJECT NUMBER :	2032
FIGURE NUMBER :	15

FILE: S:\CONTRACT\2032\Acid\Figures\03\GWSchem\DistributionofpH16.dwg, 07/17/07.mxd  
PAGE: 1  
PLOT: 04/16/07

Notes:

1. Up to four rounds of groundwater pH measurements are presented on this figure. Groundwater samples were collected by SHA in September 2001, May 2002, October/November 2003, and September 2006. At each location, a stabilized pH measurement was recorded using a Yellow Springs Instrument, Inc. (YSI) Model 600 XLM or 560 MPS handheld field meter during low flow groundwater sampling in accordance with the standard operating procedures (SOP) for groundwater sampling (SOP-1669F) outlined in the Quality Assurance Project Plan (QAPP). Results are presented in standard units (s.u.).
2. The pH isopleths presented on this figure are reflective of the 2006 groundwater pH measurements, or where samples were not collected during 2006, the most recent previous groundwater pH measurement. The pH isopleths were developed using generally accepted hydrogeologic practices and are intended to depict inferred trends in pH concentrations consistent with available information. Actual conditions may vary from those shown and other interpretations are possible.
3. \*\*\* indicates sampling of SH-02D in 2003 indicated that pH values were approximately 6.6 s.u. A review of historical data for SH-02D (from 2001 and 2002) suggests that this is an anomalously low measurement relative to previous sampling rounds. In addition, the pumping duration of the 2003 sampling round was significantly shorter than the previous rounds, despite stabilization of field parameters. Therefore, we believe that the data collected from the 2001 and 2002 sampling round are more reliable than the data collected from the 2003 sampling round at the SH-02D monitoring well. Hence, our pH isopleths in the vicinity of SH-02D are based on the 2001 and 2002 groundwater data.
4. See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater data to the measured maximum concentration from the 2001/2002/2003 groundwater data.
5. Refer to Figures 2 through 5 for additional notes and legend.

LEGEND:

SH-03D  
GROUNDWATER MONITORING WELL LOCATION / DESIGNATION

CONCENTRATION COMPARISON  
REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.

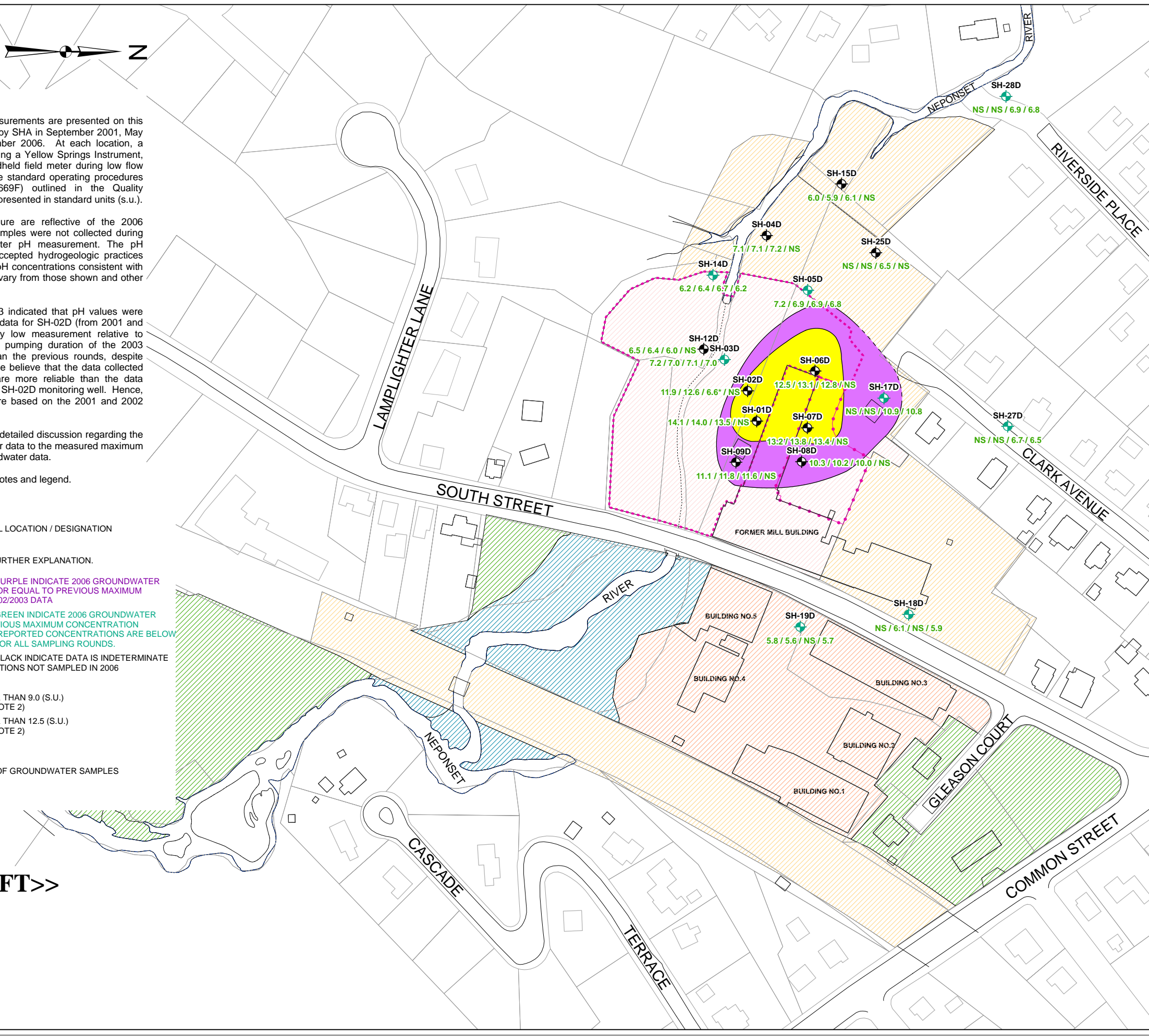
- SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE 2006 GROUNDWATER CONCENTRATION GREATER THAN OR EQUAL TO PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA
- SAMPLING LOCATIONS SHOWN IN GREEN INDICATE 2006 GROUNDWATER CONCENTRATION LESS THAN PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA, OR REPORTED CONCENTRATIONS ARE BELOW LABORATORY REPORTING LIMITS FOR ALL SAMPLING ROUNDS.
- SAMPLING LOCATIONS SHOWN IN BLACK INDICATE DATA IS INDETERMINATE FROM REPORTING LIMITS OR LOCATIONS NOT SAMPLED IN 2006

- INFERRED AREA WITH pH GREATER THAN 9.0 (S.U.) BASED ON 2006 DATA (REFER TO NOTE 2)
- INFERRED AREA WITH pH GREATER THAN 12.5 (S.U.) BASED ON 2006 DATA (REFER TO NOTE 2)

GROUNDWATER:

- 6.2 / 6.4 / 6.7 / 6.2 OBSERVED pH (S.U.) OF GROUNDWATER SAMPLES
- 2001 / 2002 / 2003 / 2006 YEAR COLLECTED
- NS NO SAMPLE DATA AVAILABLE

<<02 DRAFT>>



GRAPHICAL SCALE	
Feet	0 80 160 240
SHA ENGINEERS • SCIENTISTS	
DRAWN BY: LAALIK DESIGNED BY: LAALIK CHECKED BY: TWM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07	
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS	
DISTRIBUTION OF pH IN DEEP GROUNDWATER	
PROJECT NUMBER :	2032
FIGURE NUMBER :	16

The map displays the Neponset River flowing through a residential and industrial area. Key streets include Lamplighter Lane, South Street, Cascade Terrace, Gleason Court, Common Street, Clark Avenue, Riverside Place, and Neponset River. Building footprints are labeled as Building No. 1 through Building No. 5, and the Former Mill Building. Sampling locations are marked with green dots and labeled with codes such as SH-01R, SH-02R, SH-05R-A, SH-05R-B, SH-06R-A, SH-06R-B, SH-17R, SH-19R, SH-24R, and SH-28R. Data values for each location are provided in green text, representing various water quality parameters. A legend in the bottom left corner explains the color coding for the data: Blue for 2006 data, Green for previous years' data, and Yellow for 2003 data. The map also shows the Neponset River's path and surrounding areas like Cascade Terrace and Gleason Court.

1. Up to four rounds of groundwater pH measurements are presented on this figure. Groundwater samples were collected by SHA in September 2001, May 2002, October/November 2003, and September 2006. At each location, a stabilized pH measurement was recorded using a Yellow Springs Instrument, Inc. (YSI) Model 600 XLM or 560 MPS handheld field meter during low flow groundwater sampling in accordance with the standard operating procedures (SOP) for groundwater sampling (SOP-1669F) outlined in the Quality Assurance Project Plan (QAPP). Results are presented in standard units (s.u.).

2. The pH isopleths presented on this figure are reflective of the 2006 groundwater pH measurements, or where samples were not collected during 2006, the most recent previous groundwater pH measurement. The pH isopleths were developed using generally accepted hydrogeologic practices and are intended to depict inferred trends in pH concentrations consistent with available information. Actual conditions may vary from those shown and other interpretations are possible.

3 See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater data to the measured maximum concentration from the 2001/2002/2003 groundwater data.

4. Refer to Figures 2 through 5 for additional notes and legend.

**LEGEND:**


SH-02R GROUNDWATER MONITORING WELL LOCATION / DESIGNATION

### CONCENTRATION COMPARISON

REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.


 SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE 2006 GROUNDWATER CONCENTRATION GREATER THAN OR EQUAL TO PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA

 SAMPLING LOCATIONS SHOWN IN GREEN INDICATE 2006 GROUNDWATER CONCENTRATION LESS THAN PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA, OR REPORTED CONCENTRATIONS ARE BELOW LABORATORY REPORTING LIMITS FOR ALL SAMPLING ROUNDS.

 SAMPLING LOCATIONS SHOWN IN BLACK INDICATE DATA IS  
INDETERMINATE FROM REPORTING LIMITS OR LOCATIONS  
NOT SAMPLED IN 2006

INFERRED AREA WITH pH GREATER THAN 9.0 (S.U.)

BASED ON 2006 DATA (REFER TO NOTE 2)

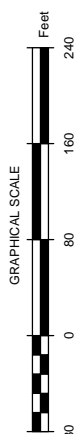
 INFERRED AREA WITH pH GREATER THAN 12.5 (S.U.)  
BASED ON 2006 DATA (REFER TO NOTE 2)

GROUNDWATER:

NS / NS / 8.0 / 7.2      OBSERVED pH (S.U.) OF GROUNDWATER SAMPLES

2001 / 2002 / 2003 / 2006 YEAR COLLECTED

**NS** NO SAMPLE DATA AVAILABLE

[illegible]

DRAWN BY: LAALJK  
DESIGNED BY: LAALJK  
CHECKED BY: TMW/BAG  
REVIEWED BY: CLH/CAC  
PROJECT MGR: BAG  
PIC: CLH  
DATE: APR 07

**PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS  
BLACKBURN & UNION PRIVILEGES SUPERFUND SITE  
WALPOLE, MASSACHUSETTS**

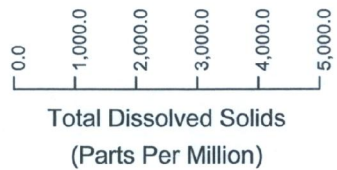
# DISTRIBUTION OF pH IN BEDROCK GROUNDWATER

PROJECT NUMBER : 2032

FIGURE NUMBER :  
17



1. THIS FIGURE WAS ORIGINALLY CREATED USING ROCKWORKS V. 2006 BY ROCKWARE, INC.
2. THE CONCENTRATIONS FOR CATIONS AND ANIONS ARE PRESENTED IN MILLIEQUIVALENTS PER LITER (MEQ/L) AND PERCENTAGES OF TOTAL EQUIVALENTS. pH IS PRESENTED IN STANDARD pH UNITS (S.U.)
3. THE DATA PRESENTED IN THESE DIAGRAMS ARE FOR SAMPLES COLLECTED BY SANBORN, HEAD AND ASSOCIATES DURING SEPTEMBER/OCTOBER 2006 SAMPLING ROUND.
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• SH-01S-01	○ SH-06S-01	✕ SH-12S-02	⌋ SH-17S-03	⊗ SH-23S-06
• SH-01S-02	○ SH-06S-02	✕ SH-12S-03	⌋ SH-17S-06	⊗ SH-24S-03
• SH-01S-03	○ SH-06S-03	○ SH-13S-01	⌋ SH-18S-01	⊗ SH-24S-06
• SH-01S-06	✱ SH-07S-01	○ SH-13S-02	⌋ SH-18S-02	△ SH-25S-03
● SH-02S-01	✱ SH-07S-02	○ SH-13S-03	⌋ SH-18S-06	△ SH-25S-06
● SH-02S-02	✱ SH-07S-03	○ SH-13S-06	✱ SH-19S-01	✱ SH-26S-03
● SH-02S-03	■ SH-08S-01	✕ SH-14S-01	✱ SH-19S-02	✱ SH-26S-06
⬢ SH-03S-01	■ SH-08S-02	✕ SH-14S-02	✱ SH-19S-06	⬢ SH-27S-03
⬢ SH-03S-02	■ SH-08S-03	✕ SH-14S-03	⊗ SH-20S-01	⬢ SH-27S-06
⬢ SH-03S-03	+ SH-09S-01	✕ SH-14S-06	⊗ SH-20S-02	✱ SH-28S-03
⬢ SH-03S-06	+ SH-09S-02	✱ SH-15S-01	⊗ SH-21S-01	✱ SH-28S-06
○ SH-04S-01	+ SH-09S-03	✱ SH-15S-02	⊗ SH-21S-02	
○ SH-04S-02	✱ SH-10S-01	✱ SH-15S-03	⊗ SH-21S-06	
○ SH-04S-03	✱ SH-10S-02	✱ SH-15S-06	□ SH-22S-01	
○ SH-04S-06	✱ SH-10S-03	⊗ SH-16S-01	□ SH-22S-02	
◆ SH-05S-01	◇ SH-11S-01	⊗ SH-16S-02	□ SH-22S-06	
◆ SH-05S-02	◇ SH-11S-02	⊗ SH-16S-03	⊗ SH-23S-01	
◆ SH-05S-03	◇ SH-11S-03	⌋ SH-17S-01	⊗ SH-23S-02	
◆ SH-05S-06	✱ SH-12S-01	⌋ SH-17S-02	⊗ SH-23S-03	

 pH < 9 S.U.

 9 S.U. < pH < 12 S.U.

<<01\_DRAFT>>

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- SH-01D-06
- ◆ SH-03D-06
- ◆ SH-05D-06
- ◆ SH-14D-06
- ✱ SH-15D-06
- SH-17D-06
- ✱ SH-18D-06
- ✱ SH-19D-06
- ✱ SH-25D-06
- ⊗ SH-27D-06
- SH-28D-06

 pH < 9 S.U.

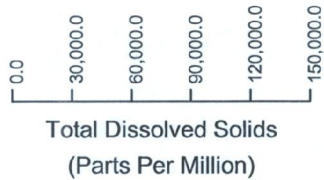
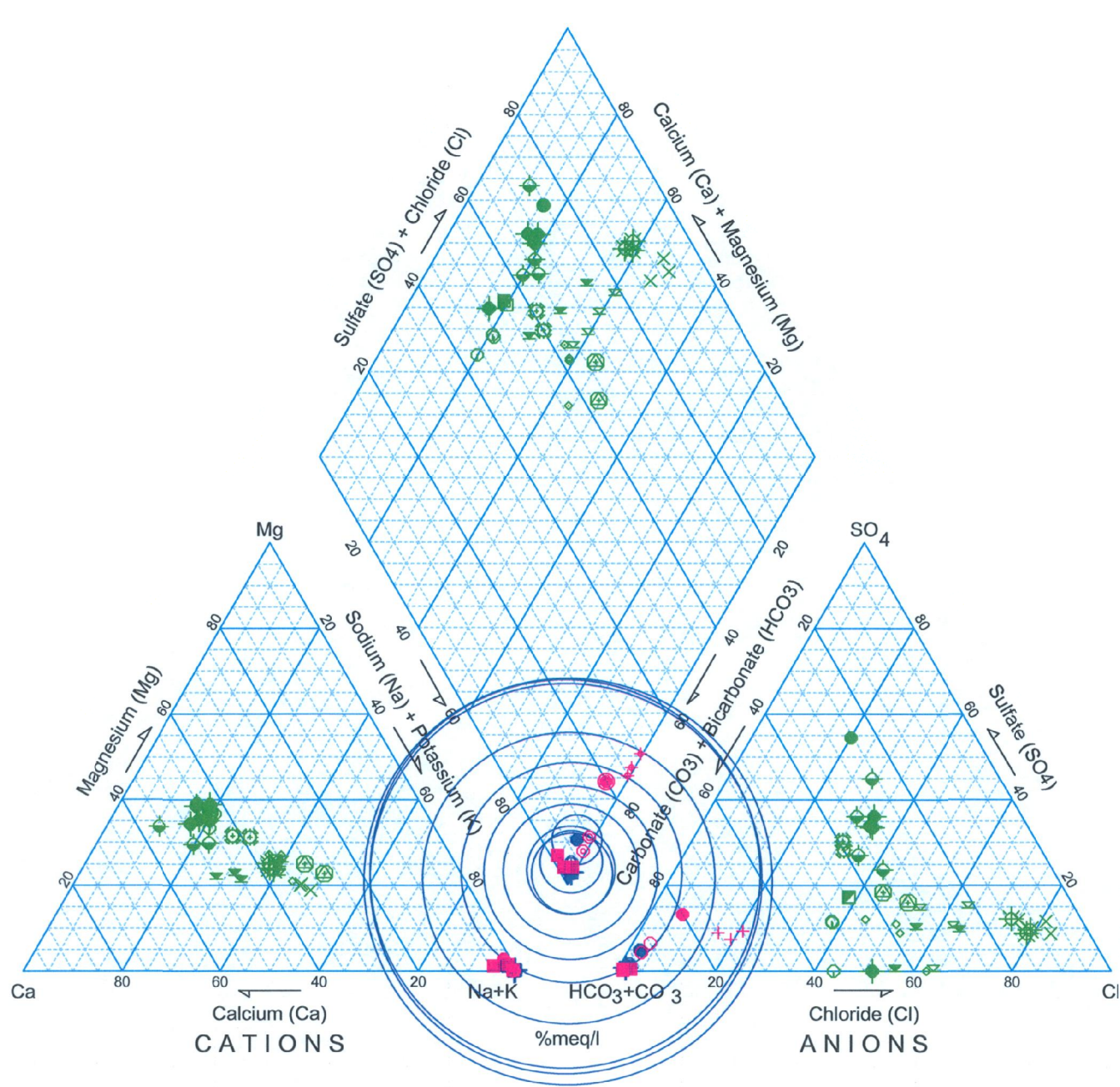
 9 S.U. < pH < 12 S.U.

 pH > 12 S.U.

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PROJECT NUMBER: 2032.00		ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS WALPOLE, MASSACHUSETTS		DRAWN BY: EMW/CBG		NOT TO SCALE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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SYMBOL DESIGNATION

- |             |             |             |
|-------------|-------------|-------------|
| • SH-01D-01 | • SH-06D-02 | • SH-15D-02 |
| • SH-01D-02 | • SH-06D-03 | • SH-15D-03 |
| • SH-01D-03 | • SH-07D-01 | • SH-15D-06 |
| • SH-01D-06 | • SH-07D-02 | • SH-17D-03 |
| • SH-02D-01 | • SH-07D-03 | • SH-17D-06 |
| • SH-02D-02 | • SH-08D-01 | • SH-18D-01 |
| • SH-02D-03 | • SH-08D-02 | • SH-18D-02 |
| • SH-03D-01 | • SH-08D-03 | • SH-18D-06 |
| • SH-03D-02 | • SH-09D-01 | • SH-19D-01 |
| • SH-03D-03 | • SH-09D-02 | • SH-19D-02 |
| • SH-03D-06 | • SH-09D-03 | • SH-19D-06 |
| • SH-04D-01 | • SH-12D-01 | • SH-25D-03 |
| • SH-04D-02 | • SH-12D-02 | • SH-25D-06 |
| • SH-04D-03 | • SH-12D-03 | • SH-27D-03 |
| • SH-05D-01 | • SH-14D-01 | • SH-27D-06 |
| • SH-05D-02 | • SH-14D-02 | • SH-28D-03 |
| • SH-05D-03 | • SH-14D-03 | • SH-28D-06 |
| • SH-05D-06 | • SH-14D-06 |             |
| • SH-06D-01 | • SH-15D-01 |             |

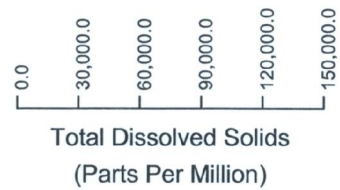
COLOR DESIGNATION

- |   |                       |
|---|-----------------------|
| ■ | pH < 9 S.U.           |
| ■ | 9 S.U. < pH < 12 S.U. |
| ■ | pH > 12 S.U.          |

<<01\_DRAFT>>

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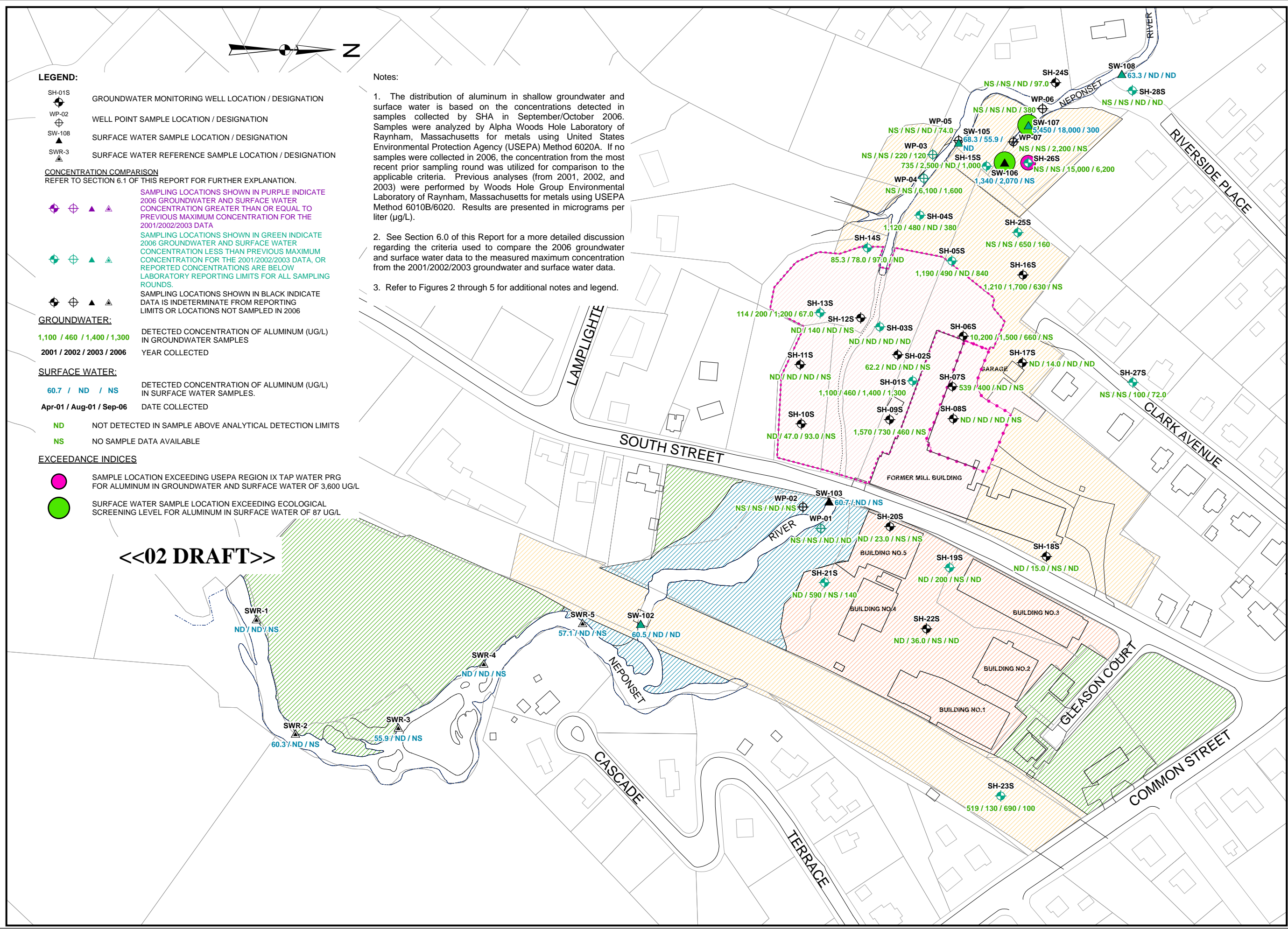
- SH-01R-01
- SH-01R-02
- SH-01R-03
- SH-01R-06
- SH-02R-01
- SH-02R-02
- SH-02R-03
- SH-02R-06
- ◊ SH-05R-A-03
- ◊ SH-05R-A-06
- ◊ SH-05R-B-03
- ◊ SH-05R-B-06
- SH-06R-A-03
- SH-06R-A-06
- SH-06R-B-03
- SH-06R-B-06
- ✱ SH-17R-03
- ✱ SH-17R-06
- ◆ SH-19R-01
- ◆ SH-19R-02
- ◆ SH-19R-06
- ▣ SH-24R-03
- ▣ SH-24R-06
- ▣ SH-27R-03
- ▣ SH-27R-06
- ◊ SH-28R-03
- ◊ SH-28R-06

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 9 S.U. < pH < 12 S.U.  
 pH > 12 S.U.

<<01\_DRAFT>>

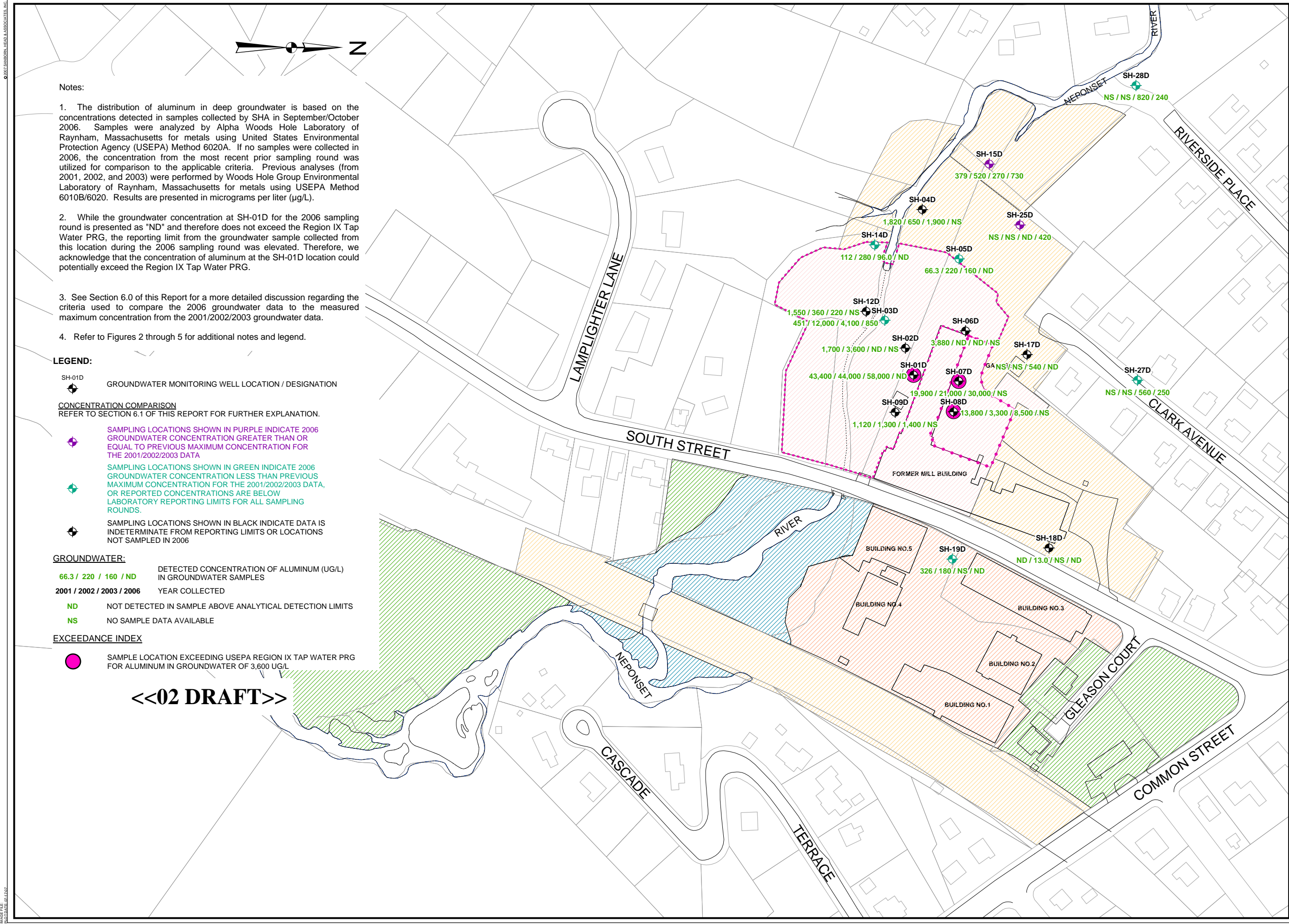
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ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS WALPOLE, MASSACHUSETTS					
PROJECT NUMBER: 2032.00					
FIGURE NUMBER: 20B					
DRAWN BY: EMW/CBG  DESIGNED BY: TMW  CHECKED BY: BAG  REVIEWED BY: CAC  PROJECT MGR: BAG  PIC: CLH  DATE: APR 07					
NOT TO SCALE					
					
ENGINEERS • SCIENTISTS					
NO. DATE DESCRIPTION BY					

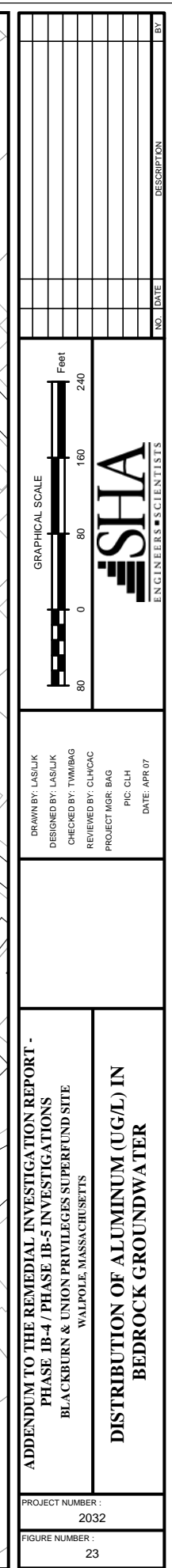


<p><b>ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE IB-4 / PHASE IB-5 INVESTIGATIONS</b> BLACKBURN &amp; UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS</p>		<p><b>DISTRIBUTION OF ALUMINUM (UG/L) IN SHALLOW GROUNDWATER AND SURFACE WATER</b></p>		<p>PROJECT NUMBER : 2032</p>		<p>FIGURE NUMBER : 21</p>		<p>DRAWN BY: LAALJK DESIGNED BY: LAALJK CHECKED BY: TMW/BAG REVIEWED BY: CLH/CAC</p>		<p>PROJECT MGR: BAG PIC: CLH DATE: APR 07</p>		<p>GRAPHICAL SCALE</p> <p>Feet 240 160 80 0</p>		<p><b>SHA</b> ENGINEERS • SCIENTISTS</p>		<p>NO. DATE DESCRIPTION BY</p>	
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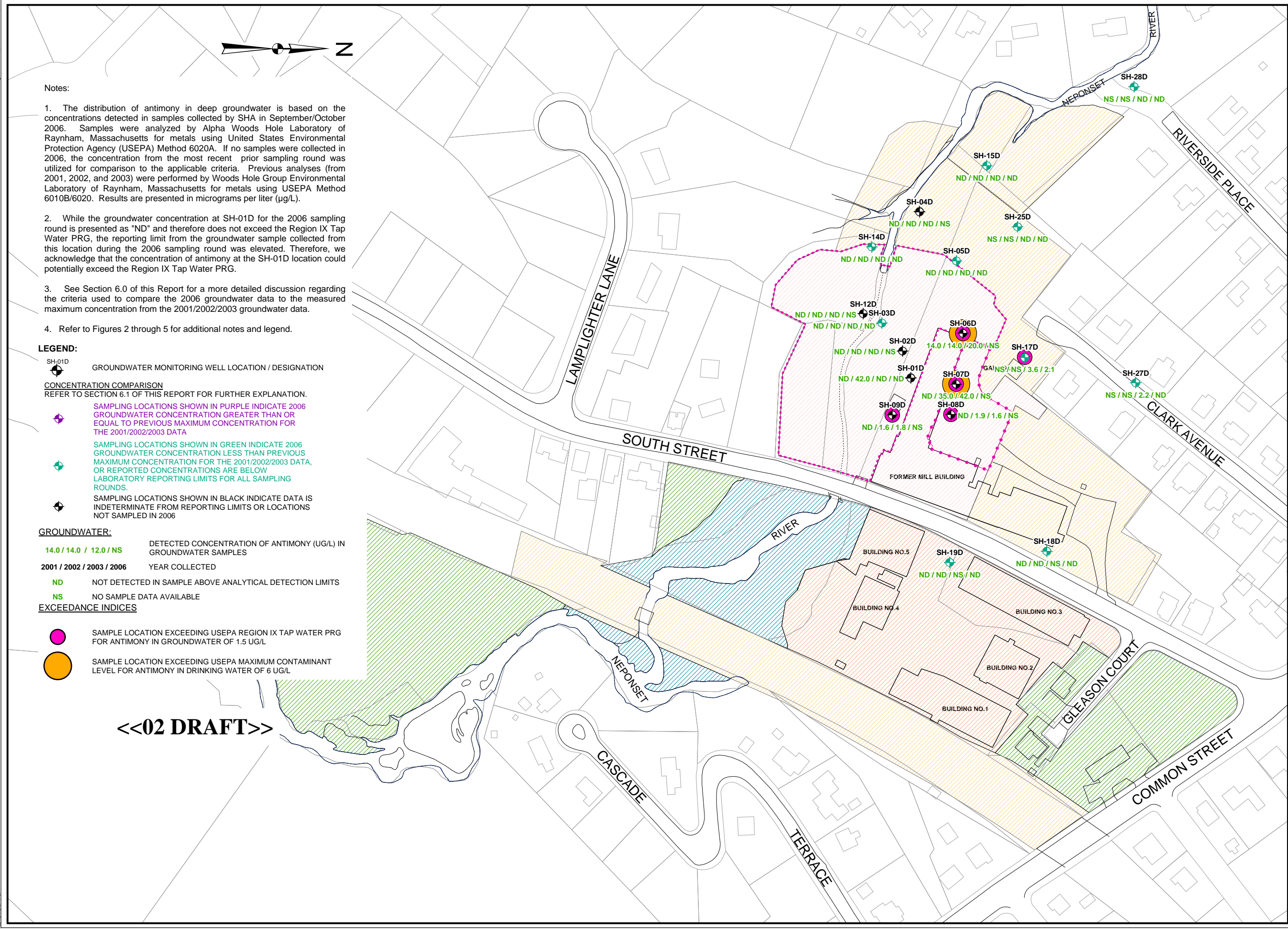
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PAGE: 22  
DATE: 04.12.07



PROJECT NUMBER : 2032	
FIGURE NUMBER : 22	
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS	
DISTRIBUTION OF ALUMINUM (UG/L) IN DEEP GROUNDWATER	
DRAWN BY: LAALIK DESIGNED BY: LAALIK CHECKED BY: TWM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07	
GRAPHICAL SCALE 0 80 160 240 Feet	
SHA ENGINEERS • SCIENTISTS	
NO.	DATE
DESCRIPTION	
BY	





[illegible]

FILE: S:\CONDATA\2001\2002\2003\2006\PHASE 1B-4\Investigation\_Report\_2007\GN\_Chem\_Analysis\gnifig\Antimony.docx 07/10/07.mxd  
PAGE: 26  
DATE: 04/17/07



Notes:

1. The distribution of antimony in bedrock groundwater is based on the concentrations detected in samples collected by SHA in September/October 2006. Samples were analyzed by Alpha Woods Hole Laboratory of Raynham, Massachusetts for metals using United States Environmental Protection Agency (USEPA) Method 6020A. If no samples were collected in 2006, the concentration from the most recent prior sampling round was utilized for comparison to the applicable criteria. Previous analyses (from 2001, 2002, and 2003) were performed by Woods Hole Group Environmental Laboratory of Raynham, Massachusetts for metals using USEPA Method 6010B/6020. Results are presented in micrograms per liter (µg/L).
2. While the groundwater concentration at SH-01R for the 2006 sampling round is presented as "ND" and therefore does not exceed the Region IX Tap Water PRG, the reporting limit from the groundwater sample collected from this location during the 2006 sampling round was elevated. Therefore, we acknowledge that the concentration of antimony at the SH-01R location could potentially exceed the Region IX Tap Water PRG.
3. See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater data to the measured maximum concentration from the 2001/2002/2003 groundwater data.
4. Refer to Figures 2 through 5 for additional notes and legend.

LEGEND:

SH-01R  
GROUNDWATER MONITORING WELL LOCATION / DESIGNATION

CONCENTRATION COMPARISON  
REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.

- SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE 2006 GROUNDWATER CONCENTRATION GREATER THAN OR EQUAL TO PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA
- SAMPLING LOCATIONS SHOWN IN GREEN INDICATE 2006 GROUNDWATER CONCENTRATION LESS THAN PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA, OR REPORTED CONCENTRATIONS ARE BELOW LABORATORY REPORTING LIMITS FOR ALL SAMPLING ROUNDS
- SAMPLING LOCATIONS SHOWN IN BLACK INDICATE DATA IS INDETERMINATE FROM REPORTING LIMITS OR LOCATIONS NOT SAMPLED IN 2006

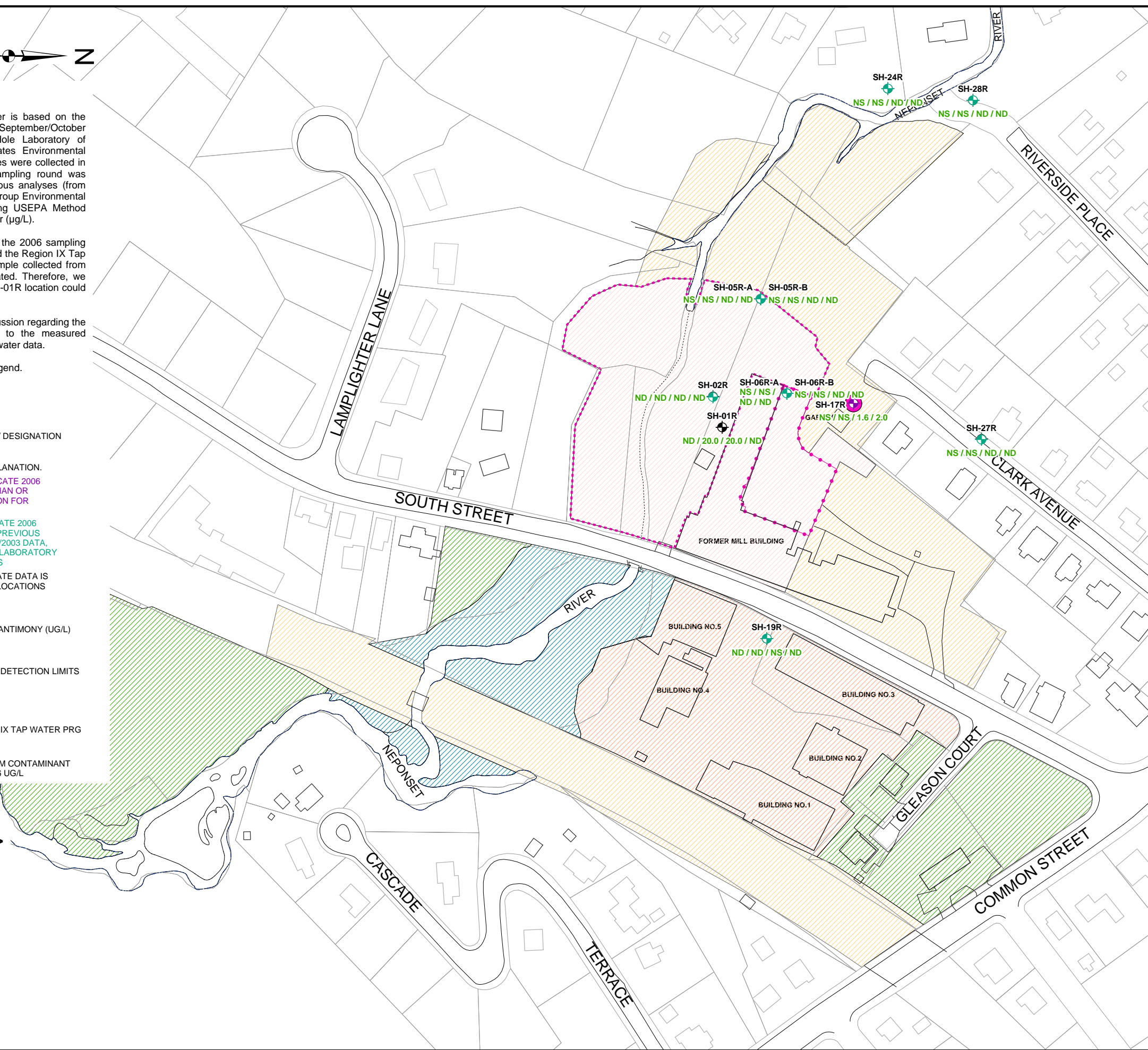
GROUNDWATER:

- ND / 20.0 / 20.0 / ND DETECTED CONCENTRATION OF ANTIMONY (UG/L) IN GROUNDWATER SAMPLES
- 2001 / 2002 / 2003 / 2006 YEAR COLLECTED
- ND NOT DETECTED IN SAMPLE ABOVE ANALYTICAL DETECTION LIMITS
- NS NO SAMPLE DATA AVAILABLE

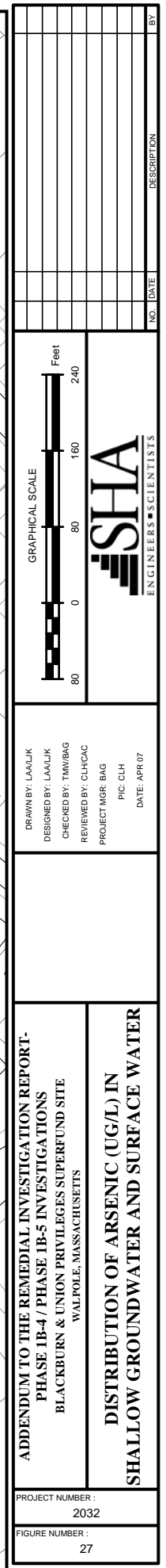
EXCEEDANCE INDEX

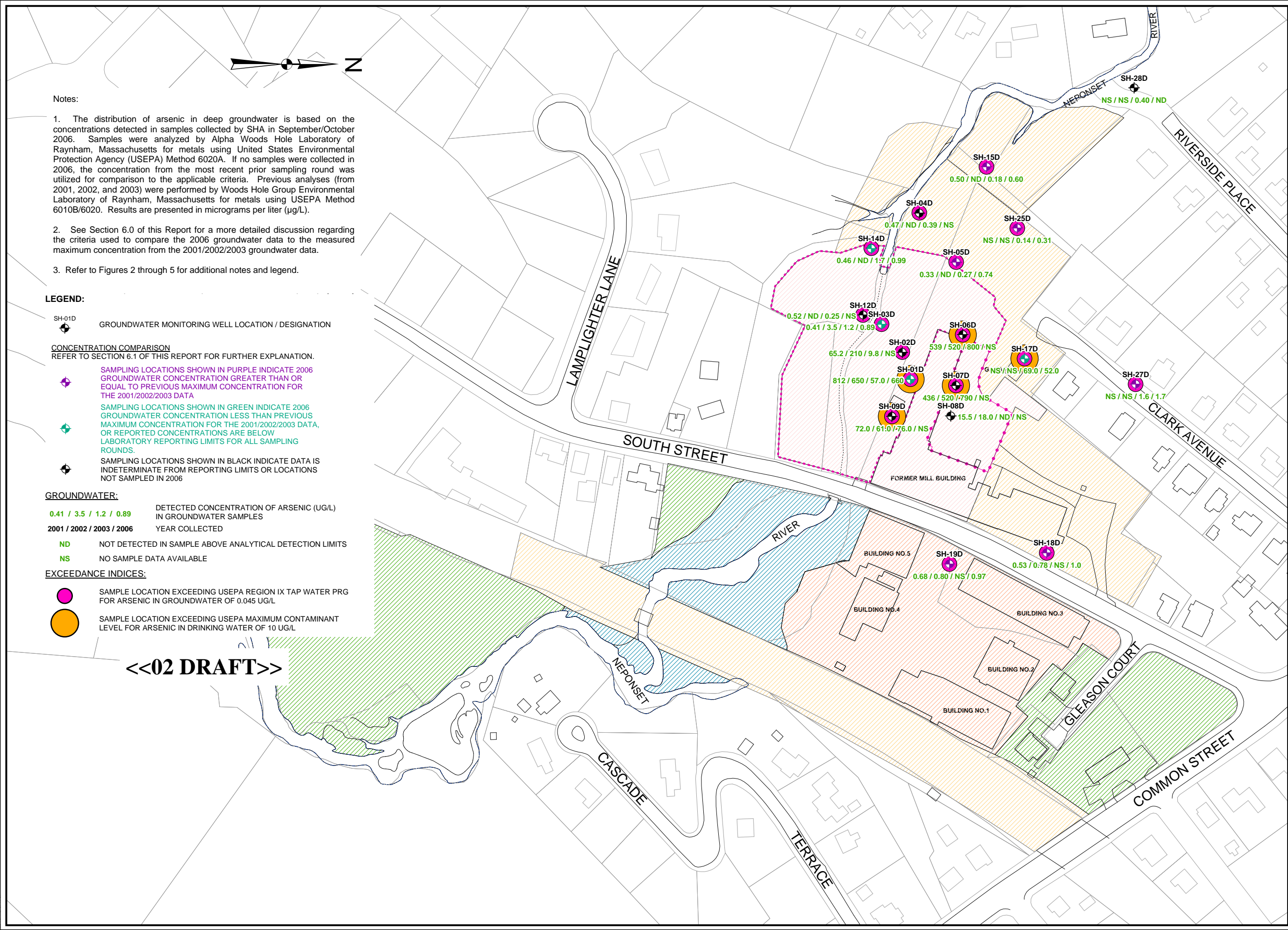
- SAMPLE LOCATION EXCEEDING USEPA REGION IX TAP WATER PRG FOR ANTIMONY IN GROUNDWATER OF 1.5 UG/L
- SAMPLE LOCATION EXCEEDING USEPA MAXIMUM CONTAMINANT LEVEL FOR ANTIMONY IN DRINKING WATER OF 6 UG/L

<<02 DRAFT>>



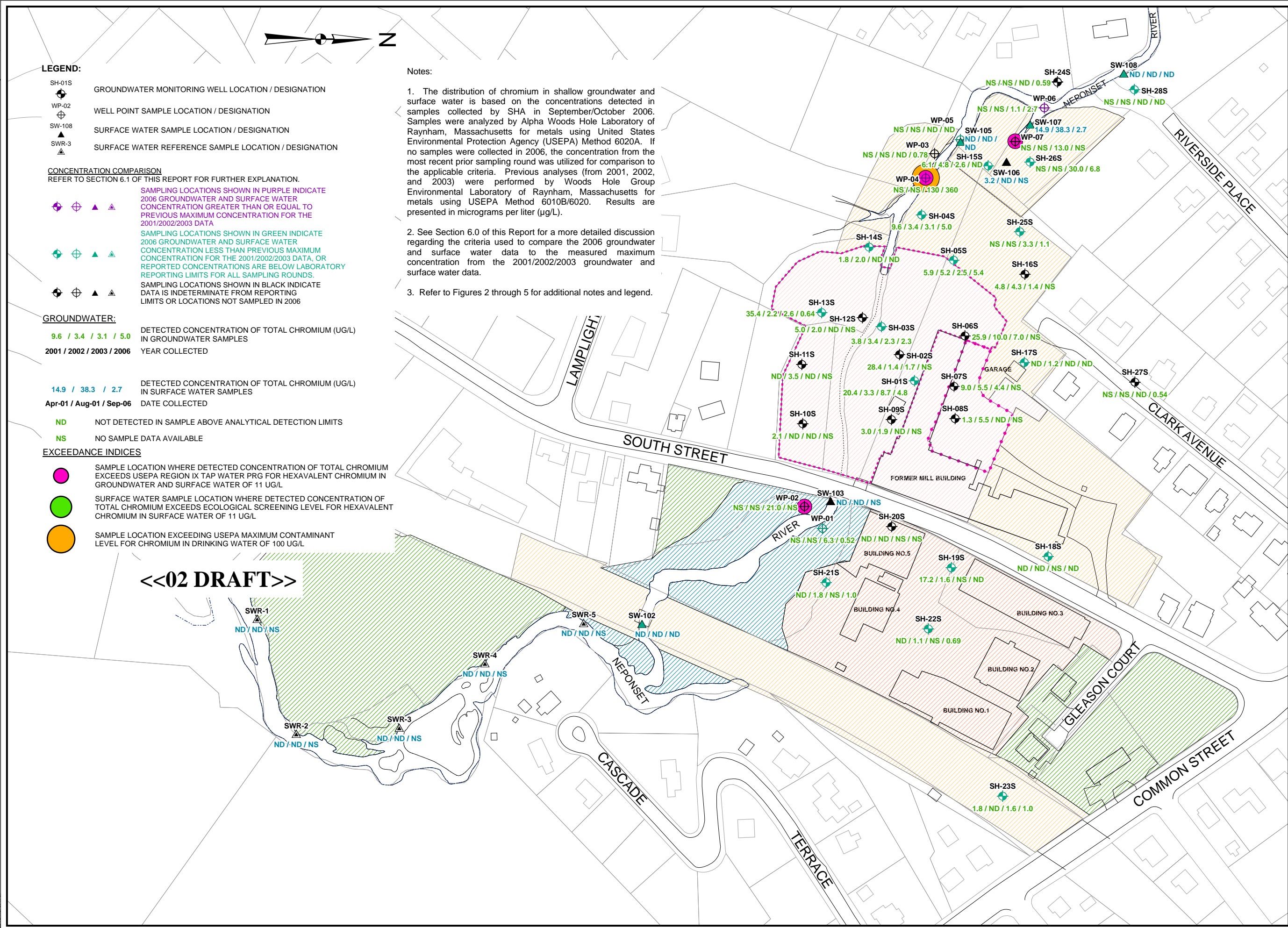
GRAPHICAL SCALE Feet 80 160 240		<b>SHA</b> ENGINEERS & SCIENTISTS	DRAWN BY: LASLUK DESIGNED BY: LASLUK CHECKED BY: TWM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		DISTRIBUTION OF ANTIMONY (UG/L) IN BEDROCK GROUNDWATER	
PROJECT NUMBER : 2032		FIGURE NUMBER : 26	



[illegible]

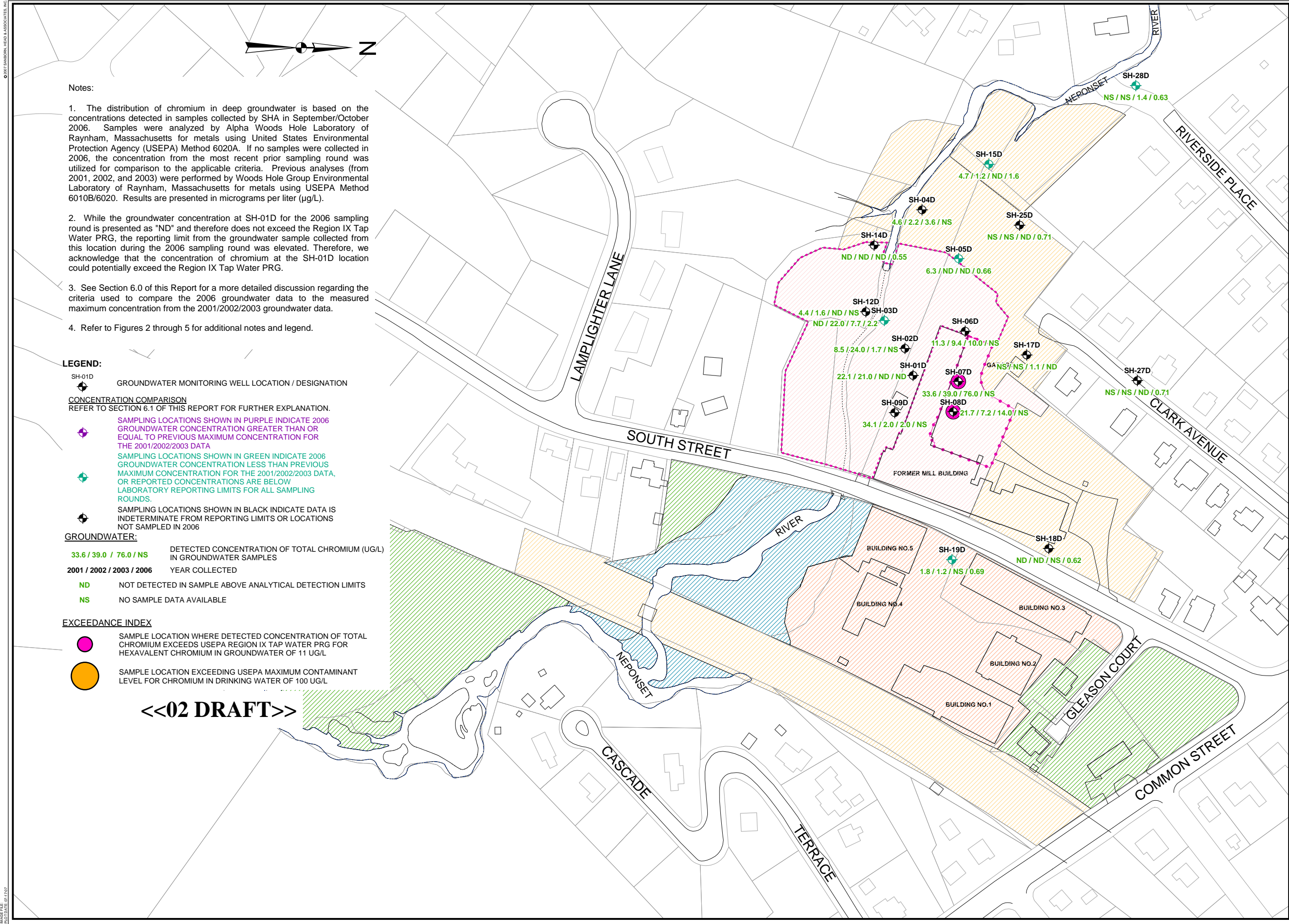


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PAGE: 11  
DATE: 04/12/07



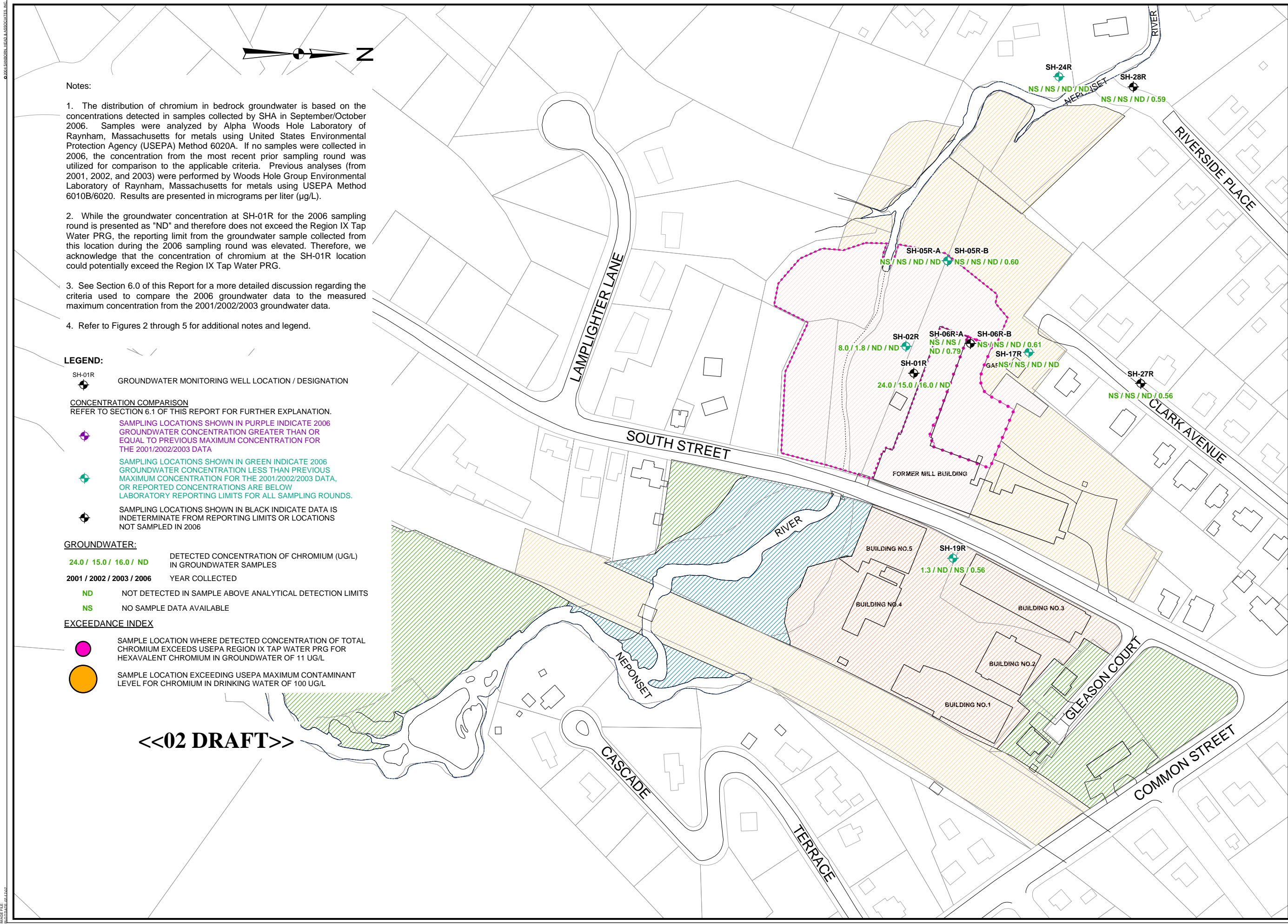
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Feet 0 80 160 240	
SHA ENGINEERS • SCIENTISTS	
DRAWN BY: LAALIK DESIGNED BY: LAALIK CHECKED BY: TWM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07	
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE IB-4 / PHASE IB-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS	
DISTRIBUTION OF CHROMIUM (UG/L) IN SHALLOW GROUNDWATER AND SURFACE WATER	
PROJECT NUMBER :	2032
FIGURE NUMBER :	30

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PAGE: 11  
NOT DATE: 07/17/07



PROJECT NUMBER : 2032	
FIGURE NUMBER : 31	
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS	
DISTRIBUTION OF CHROMIUM (UG/L) IN DEEP GROUNDWATER	
DRAWN BY: LAALIK DESIGNED BY: LAALIK CHECKED BY: TIAN/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07	
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SHA ENGINEERS • SCIENTISTS	
NO. DATE	DESCRIPTION
BY	

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PAGE: 11  
DATE: 04/13/07



PROJECT NUMBER :  
2032

FIGURE NUMBER :  
32

ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT -  
PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS  
BLACKBURN & UNION PRIVILEGES SUPERFUND SITE  
WALPOLE, MASSACHUSETTS

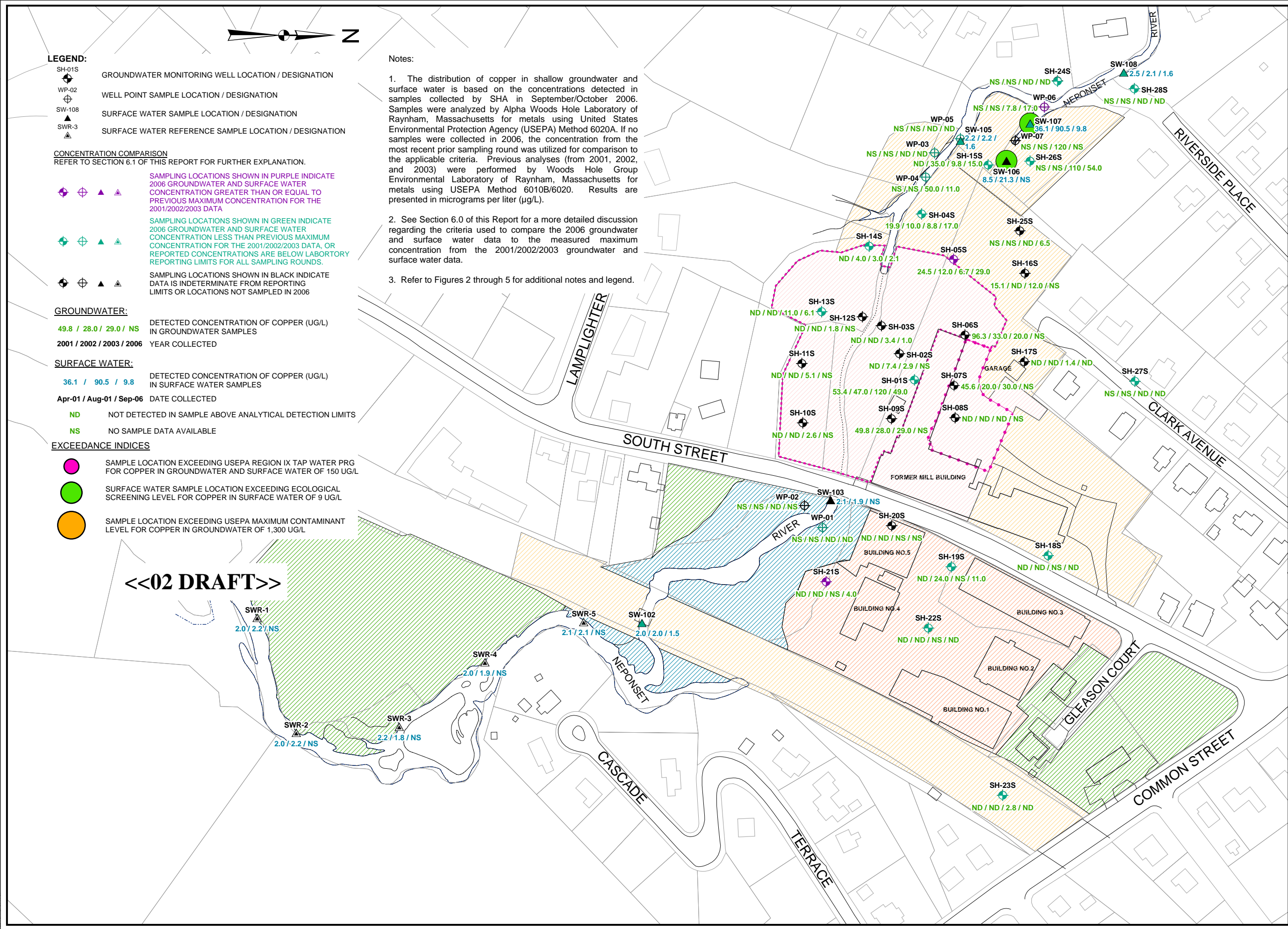
DISTRIBUTION OF CHROMIUM (UG/L) IN  
BEDROCK GROUNDWATER

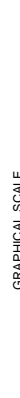

GRAPHICAL SCALE  
Feet  
0 80 160 240

SHA  
ENGINEERS • SCIENTISTS

DRAWN BY: LAALUK  
DESIGNED BY: LAALUK  
CHECKED BY: TWM/BAG  
REVIEWED BY: CLH/CAC  
PROJECT MGR: BAG  
PIC: CLH  
DATE: APR 07

NO. DATE DESCRIPTION  
BY:



ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE IB-4 / PHASE IB-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		PROJECT NUMBER : 2032		FIGURE NUMBER : 33	
DRAWN BY: LALUJK DESIGNED BY: LALUJK CHECKED BY: TMM/BAG REVIEWED BY: CHHCAC PROJECT MGR: BAG PIC: CLH DATE: APR 07		 <div style="display: flex; justify-content: space-between; align-items: center;">  </div>			
		NO. DATE DESCRIPTION BY			

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PAGE: 11  
DATE: 04/07/07  
BY: JLB

Notes:

1. The distribution of copper in deep groundwater is based on the concentrations detected in samples collected by SHA in September/October 2006. Samples were analyzed by Alpha Woods Hole Laboratory of Raynham, Massachusetts for metals using United States Environmental Protection Agency (USEPA) Method 6020A. If no samples were collected in 2006, the concentration from the most recent prior sampling round was utilized for comparison to the applicable criteria. Previous analyses (from 2001, 2002, and 2003) were performed by Woods Hole Group Environmental Laboratory of Raynham, Massachusetts for metals using USEPA Method 6010B/6020. Results are presented in micrograms per liter (µg/L).

2. See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater data to the measured maximum concentration from the 2001/2002/2003 groundwater data.

3. Refer to Figures 2 through 5 for additional notes and legend.

LEGEND:

SH-01D  
GROUNDWATER MONITORING WELL LOCATION / DESIGNATION

CONCENTRATION COMPARISON  
REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.

SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE 2006 GROUNDWATER CONCENTRATION GREATER THAN OR EQUAL TO PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA

SAMPLING LOCATIONS SHOWN IN GREEN INDICATE 2006 GROUNDWATER CONCENTRATION LESS THAN PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA, OR REPORTED CONCENTRATIONS ARE BELOW LABORATORY REPORTING LIMITS FOR ALL SAMPLING ROUNDS

SAMPLING LOCATIONS SHOWN IN BLACK INDICATE DATA IS INDETERMINATE FROM REPORTING LIMITS OR LOCATIONS NOT SAMPLED IN 2006

GROUNDWATER:

69.9 / 46.0 / ND / NS  
DETECTED CONCENTRATION OF COPPER (UG/L) IN GROUNDWATER SAMPLES

2001 / 2002 / 2003 / 2006  
YEAR COLLECTED

ND  
NOT DETECTED IN SAMPLE ABOVE ANALYTICAL DETECTION LIMITS

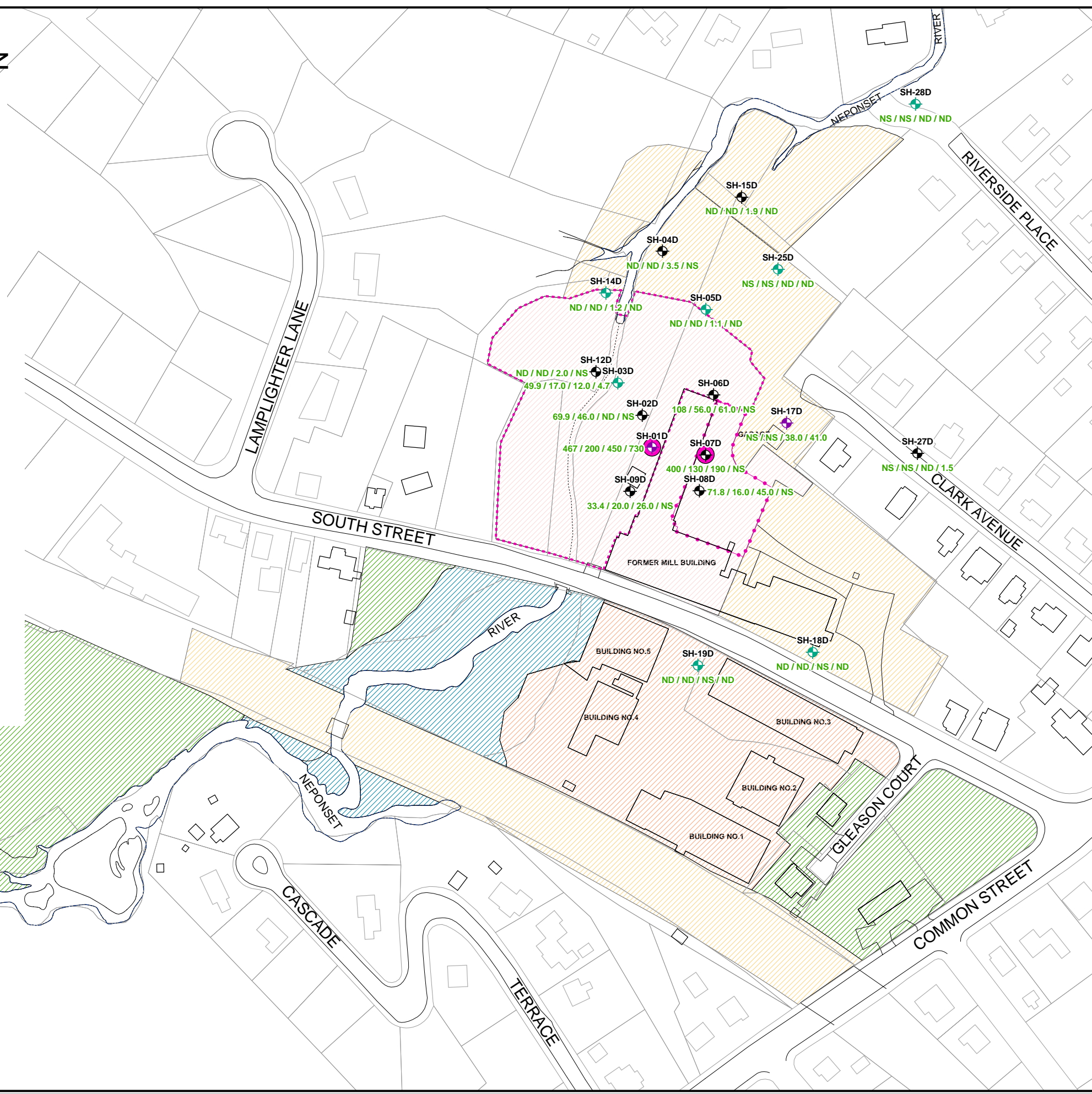
NS  
NO SAMPLE DATA AVAILABLE

EXCEEDANCE INDEX

SAMPLE LOCATION EXCEEDING USEPA REGION IX TAP WATER PRG FOR COPPER IN GROUNDWATER OF 150 UG/L

SAMPLE LOCATION EXCEEDING USEPA MAXIMUM CONTAMINANT LEVEL FOR COPPER IN GROUNDWATER OF 1,300 UG/L

<<02 DRAFT>>



GRAPHICAL SCALE  
Feet  
0 80 160 240

**SHA**  
ENGINEERS • SCIENTISTS

DRAWN BY: LAALIK  
DESIGNED BY: LAALIK  
CHECKED BY: TWM/BAG  
REVIEWED BY: CLH/CAC  
PROJECT MGR: BAG  
PIC: CLH  
DATE: APR 07

**ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT -  
PHASE IB-4 / PHASE IB-5 INVESTIGATIONS  
BLACKBURN & UNION PRIVILEGES SUPERFUND SITE  
WALPOLE, MASSACHUSETTS**

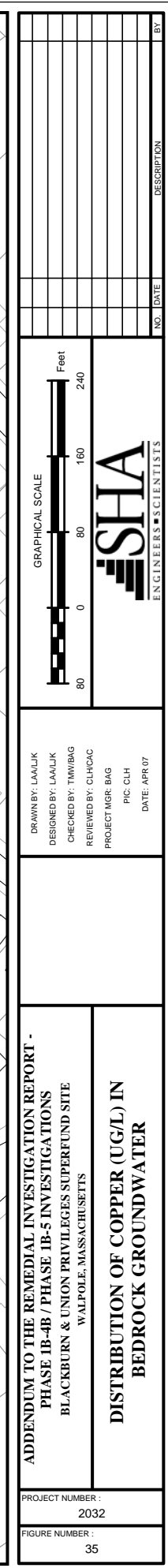
**DISTRIBUTION OF COPPER (UG/L) IN  
DEEP GROUNDWATER**

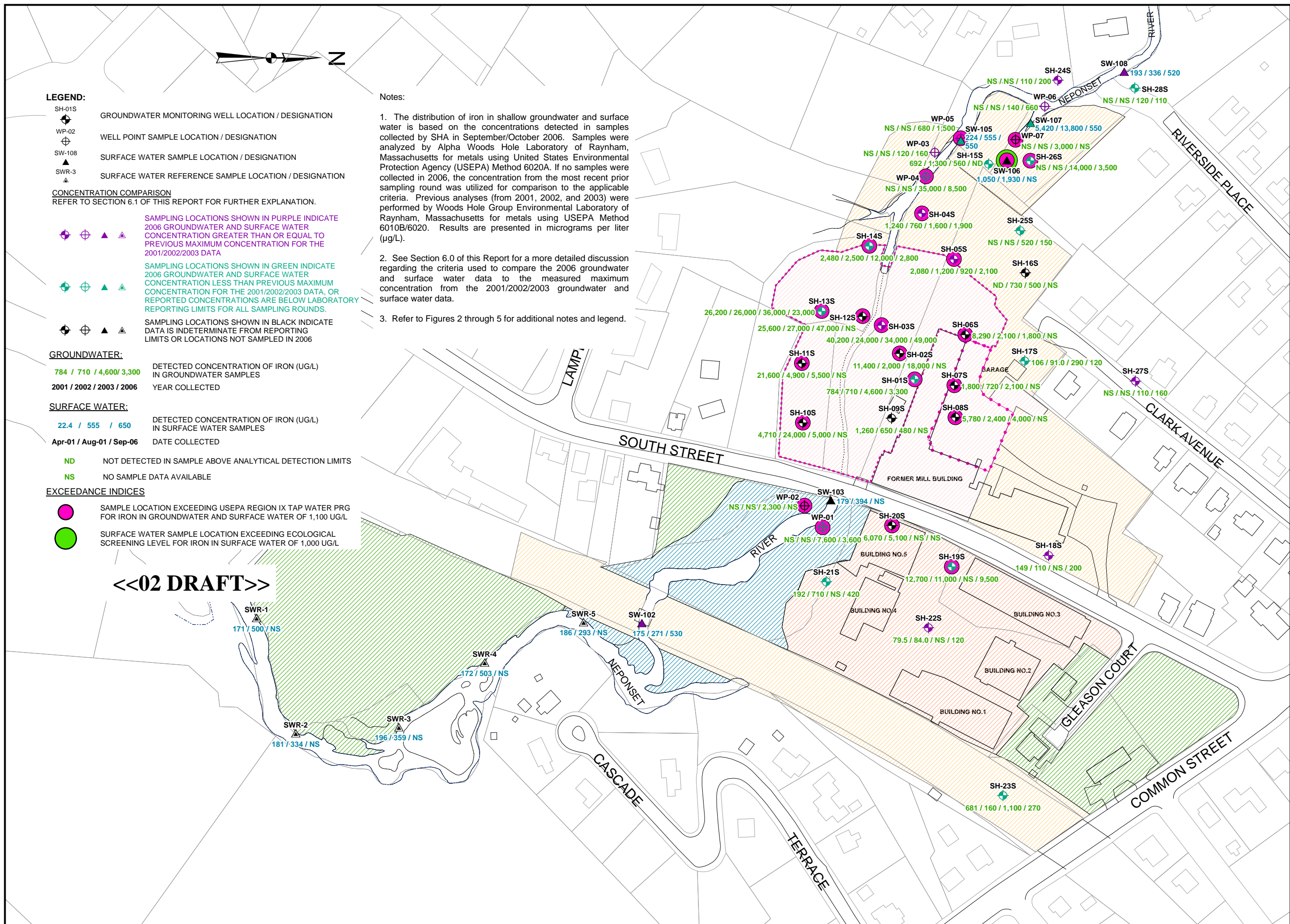
PROJECT NUMBER :  
2032



FIGURE NUMBER :  
34

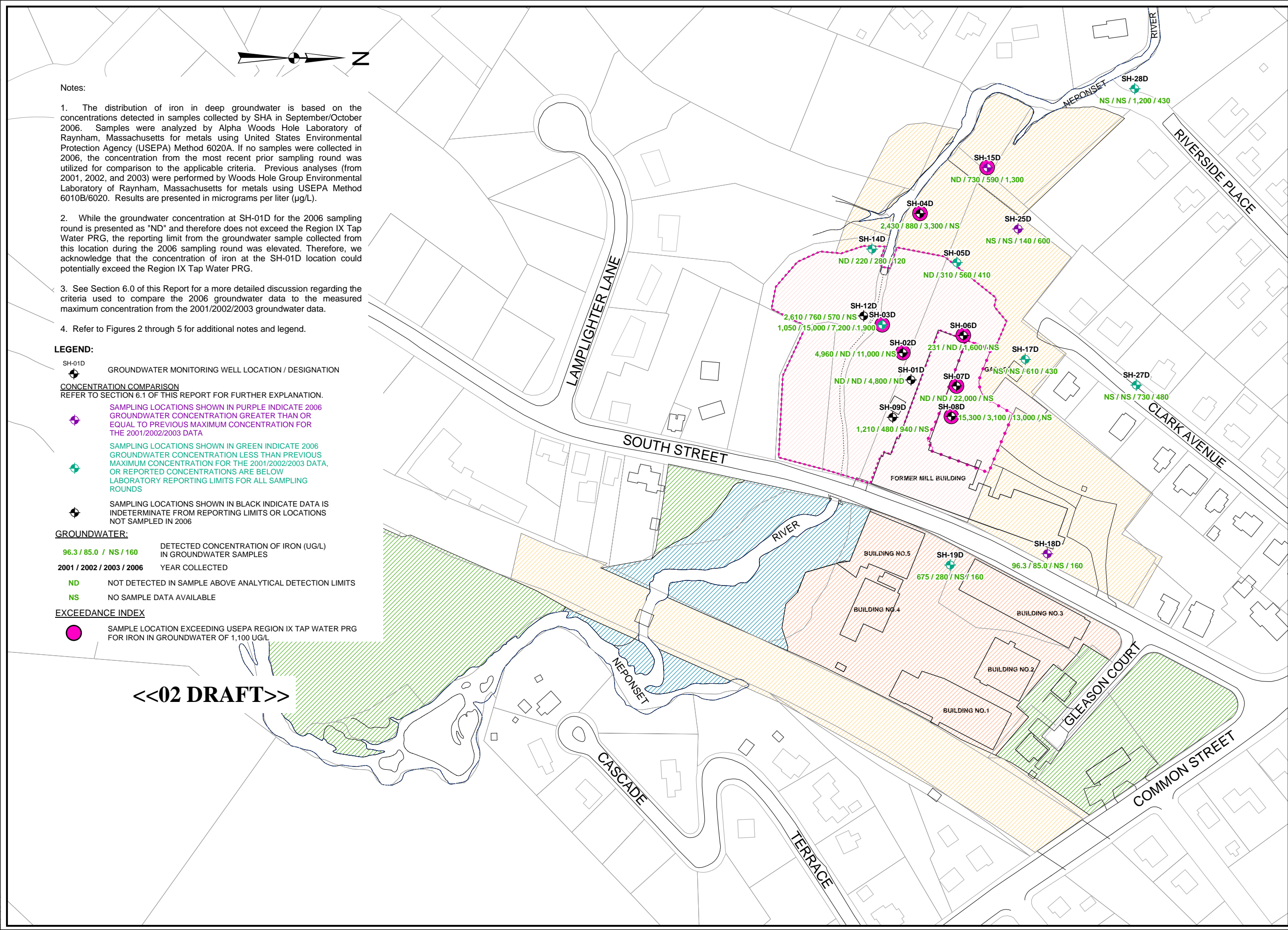
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BY





ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		PROJECT NUMBER : 2032	
DISTRIBUTION OF IRON (UG/L) IN SHALLOW GROUNDWATER AND SURFACE WATER		FIGURE NUMBER : 36	
DRAWN BY: LAALJK DESIGNED BY: LAALJK CHECKED BY: TMW/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR. 07		GRAPHICAL SCALE  Feet 80 0 80 160 240	
 ENGINEERS ■ SCIENTISTS		NO. DATE DESCRIPTION BY	

[illegible]

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PAGE: 11.E: Distribution of Iron (UG/L) in Bedrock Groundwater  
DATE: 04.12.07

© 2001 SANDERS, HEARD & ASSOCIATES, INC.

Notes:

1. The distribution of iron in bedrock groundwater is based on the concentrations detected in samples collected by SHA in September/October 2006. Samples were analyzed by Alpha Woods Hole Laboratory of Raynham, Massachusetts for metals using United States Environmental Protection Agency (USEPA) Method 6020A. If no samples were collected in 2006, the concentration from the most recent prior sampling round was utilized for comparison to the applicable criteria. Previous analyses (from 2001, 2002, and 2003) were performed by Woods Hole Group Environmental Laboratory of Raynham, Massachusetts for metals using USEPA Method 6010B/6020. Results are presented in micrograms per liter (µg/L).
2. While the groundwater concentration at SH-01R for the 2006 sampling round is presented as "ND" and therefore does not exceed the Region IX Tap Water PRG, the reporting limit from the groundwater sample collected from this location during the 2006 sampling round was elevated. Therefore, we acknowledge that the concentration of iron at the SH-01R location could potentially exceed the Region IX Tap Water PRG.
3. See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater data to the measured maximum concentration from the 2001/2002/2003 groundwater data.
4. Refer to Figures 2 through 5 for additional notes and legend.

LEGEND:

- SH-01R  
GROUNDWATER MONITORING WELL LOCATION / DESIGNATION
- CONCENTRATION COMPARISON  
REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.
- SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE 2006 GROUNDWATER CONCENTRATION GREATER THAN OR EQUAL TO PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA
- SAMPLING LOCATIONS SHOWN IN GREEN INDICATE 2006 GROUNDWATER CONCENTRATION LESS THAN PREVIOUS MAXIMUM CONCENTRATION FOR THE 2001/2002/2003 DATA, OR REPORTED CONCENTRATIONS ARE BELOW LABORATORY REPORTING LIMITS FOR ALL SAMPLING ROUNDS
- SAMPLING LOCATIONS SHOWN IN BLACK INDICATE DATA IS INDETERMINATE FROM REPORTING LIMITS OR LOCATIONS NOT SAMPLED IN 2006

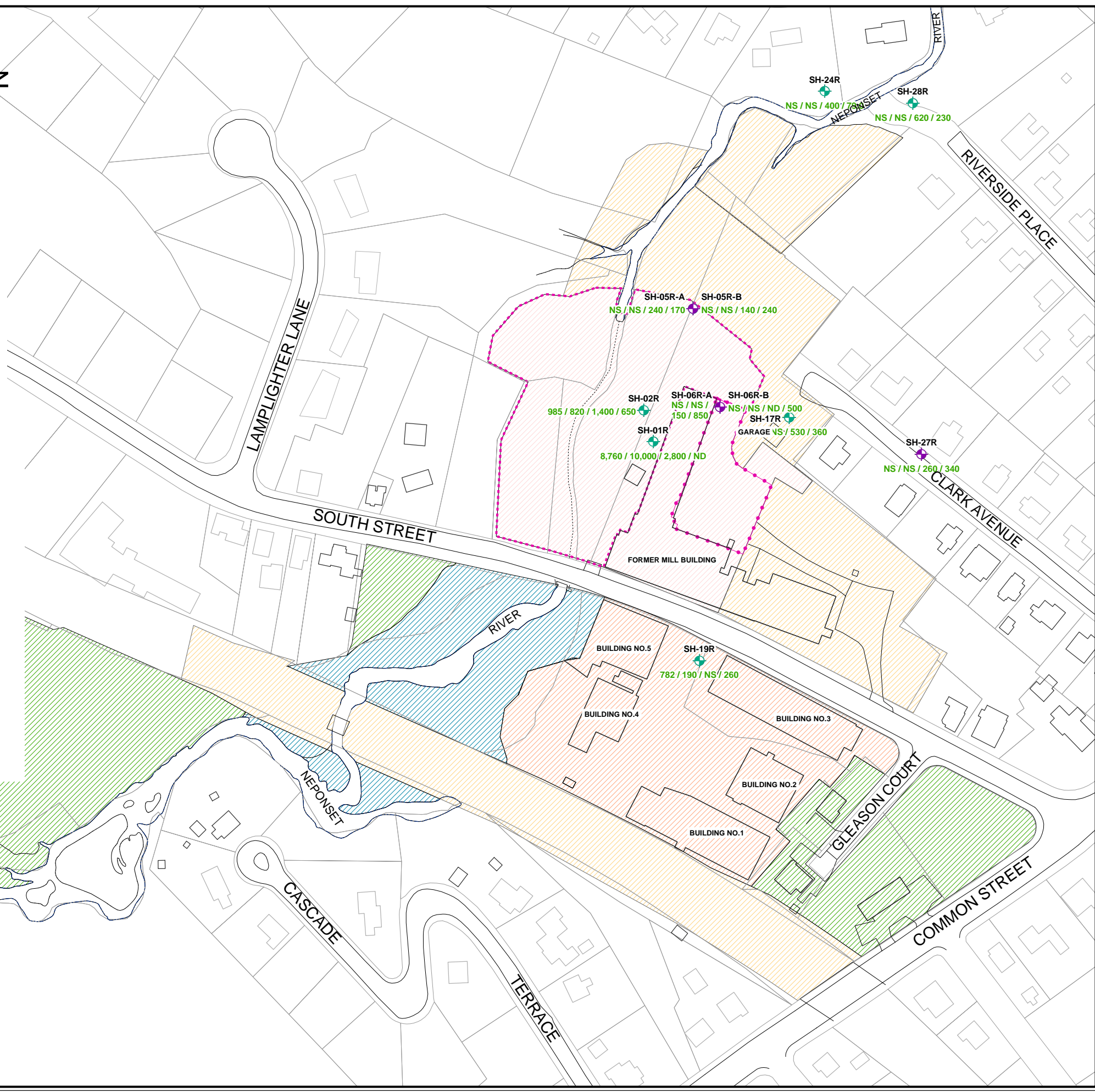
GROUNDWATER:

- NS / NS / ND / 500 DETECTED CONCENTRATION OF IRON (UG/L) IN GROUNDWATER SAMPLES
- 2001 / 2002 / 2003 / 2006 YEAR COLLECTED
- ND NOT DETECTED IN SAMPLE ABOVE ANALYTICAL DETECTION LIMITS
- NS NO SAMPLE DATA AVAILABLE

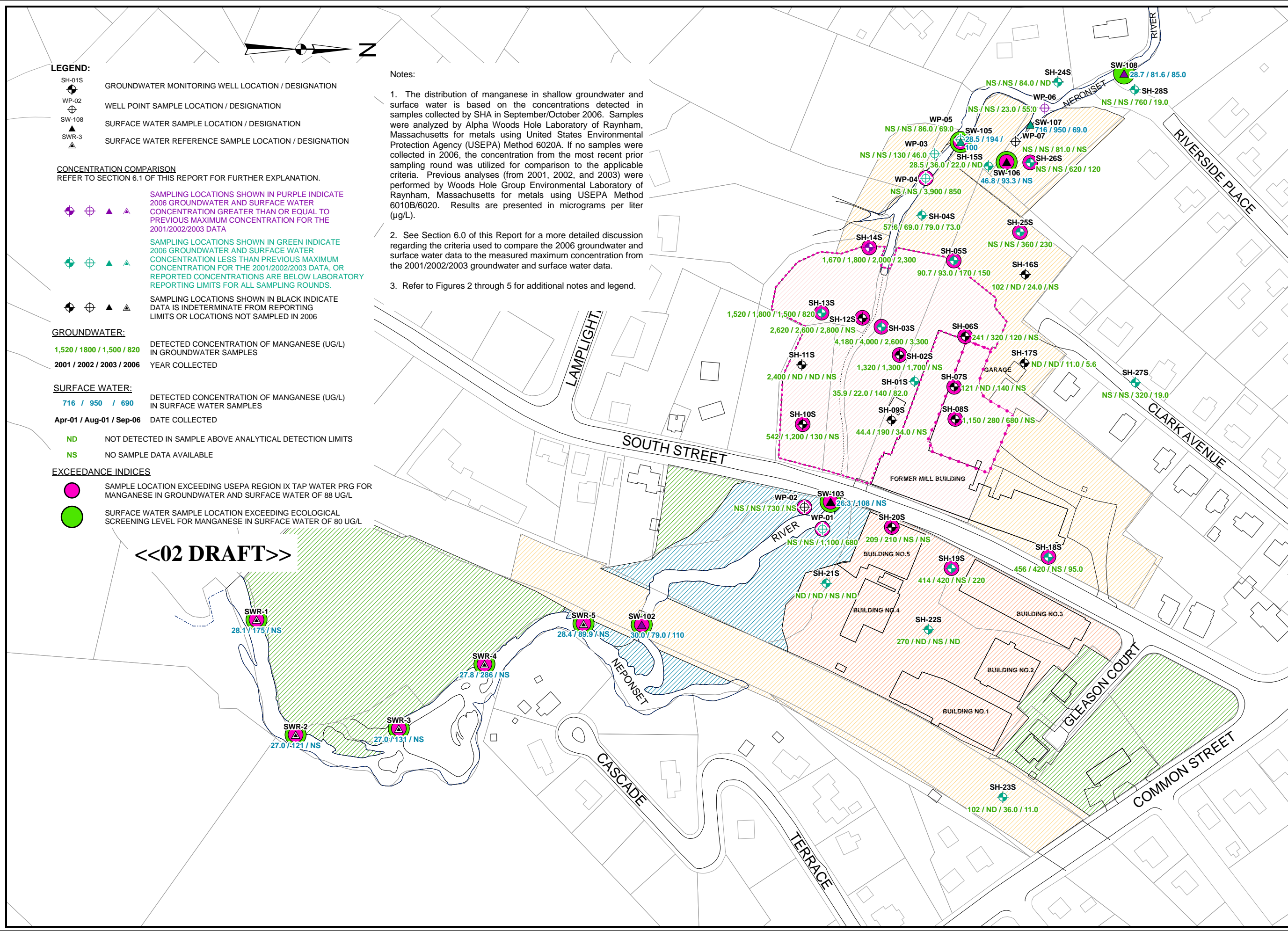
EXCEEDANCE INDEX

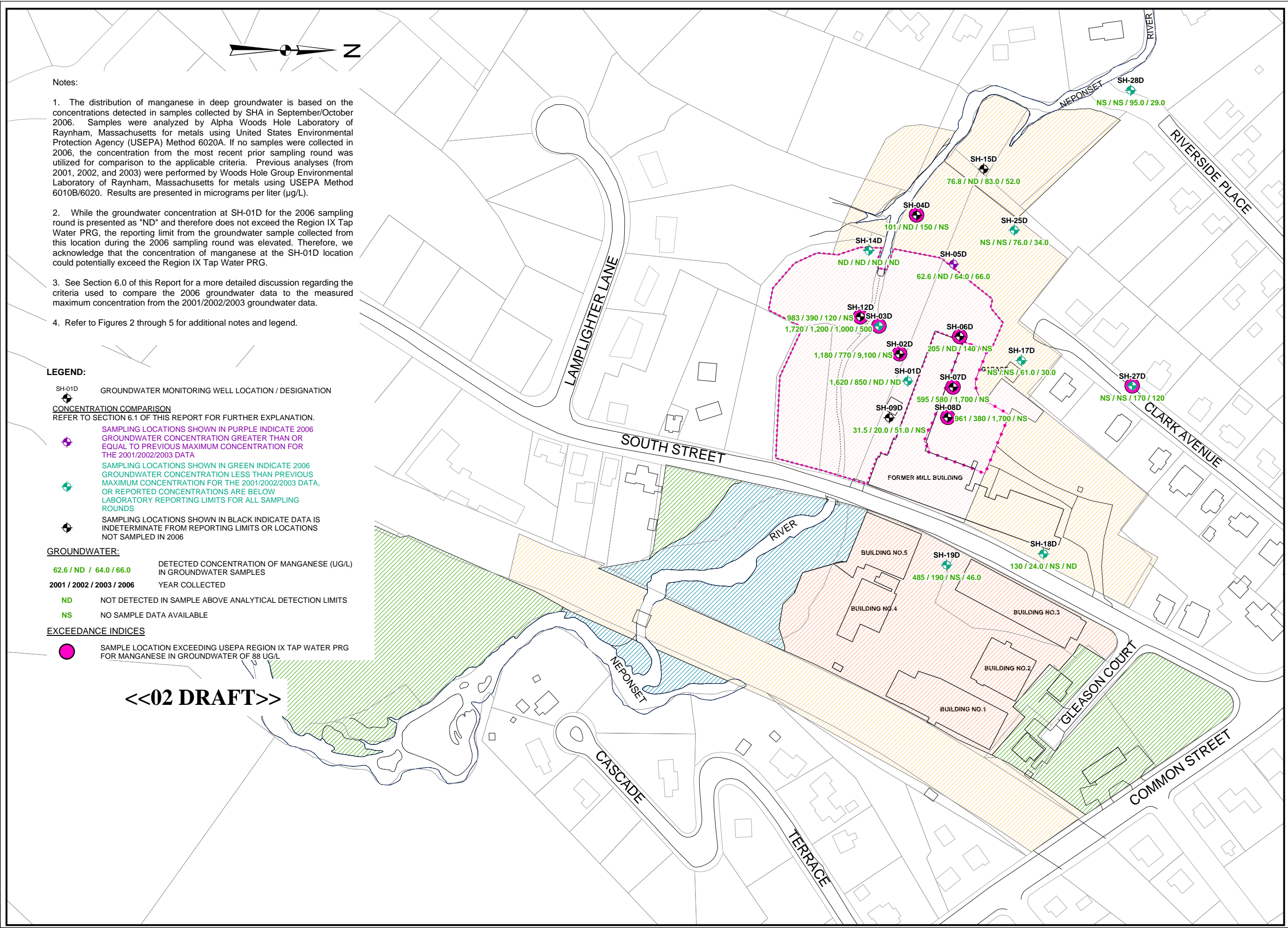
- SAMPLE LOCATION EXCEEDING USEPA REGION IX TAP WATER PRG FOR IRON IN GROUNDWATER OF 1,100 UG/L

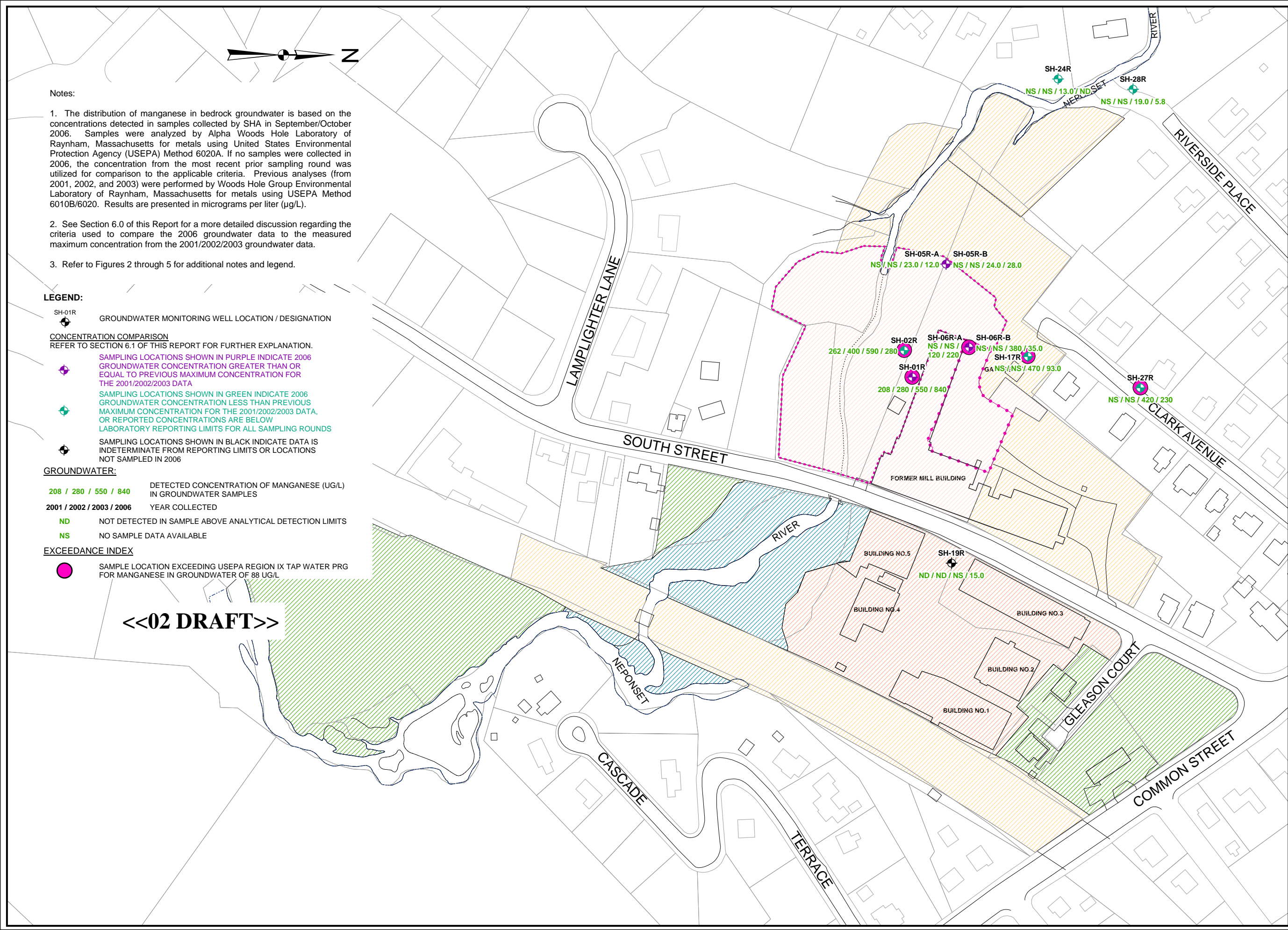
<<02 DRAFT>>



GRAPHICAL SCALE Feet 80 0 80 160 240		<b>SHA</b> ENGINEERS • SCIENTISTS
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ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE IB-4 / PHASE IB-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		
DISTRIBUTION OF IRON (UG/L) IN BEDROCK GROUNDWATER		
PROJECT NUMBER : 2032		
FIGURE NUMBER : 38		

[illegible]

[illegible]

[illegible]

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FILE: S:\CONDATA\2004\20042524\WP184\_P1818\_Inv\figs\fig2\_Lead\_SHA\WP184\_P1818.mxd  
PAGE: 42  
DATE: 04/12/07

LEGEND:

- SH-01S GROUNDWATER MONITORING WELL LOCATION / DESIGNATION  
WP-02 WELL POINT SAMPLE LOCATION / DESIGNATION  
SW-108 SURFACE WATER SAMPLE LOCATION / DESIGNATION  
SWR-3 SURFACE WATER REFERENCE SAMPLE LOCATION / DESIGNATION

CONCENTRATION COMPARISON  
REFER TO SECTION 6.1 OF THIS REPORT FOR FURTHER EXPLANATION.

- SAMPLING LOCATIONS SHOWN IN PURPLE INDICATE  
2006 GROUNDWATER AND SURFACE WATER  
CONCENTRATION GREATER THAN OR EQUAL TO  
PREVIOUS MAXIMUM CONCENTRATION FOR THE  
2001/2002/2003 DATA
- SAMPLING LOCATIONS SHOWN IN GREEN INDICATE  
2006 GROUNDWATER AND SURFACE WATER  
CONCENTRATION LESS THAN PREVIOUS MAXIMUM  
CONCENTRATION FOR THE 2001/2002/2003 DATA, OR  
REPORTED CONCENTRATIONS ARE BELOW LABORATORY  
REPORTING LIMITS FOR ALL SAMPLING ROUNDS.

- SAMPLING LOCATIONS SHOWN IN BLACK INDICATE  
DATA IS INDETERMINATE FROM REPORTING  
LIMITS OR LOCATIONS NOT SAMPLED IN 2006

GROUNDWATER:

DETECTED CONCENTRATION OF LEAD (UG/L)  
IN GROUNDWATER SAMPLES

2001 / 2002 / 2003 / 2006  
YEAR COLLECTED

SURFACE WATER:

185 / 576 / 45.0  
DETECTED CONCENTRATION OF LEAD (UG/L)  
IN SURFACE WATER SAMPLES

Apr-01 / Aug-01 / Sep-06  
DATE COLLECTED

- ND NOT DETECTED IN SAMPLE ABOVE ANALYTICAL DETECTION LIMITS  
NS NO SAMPLE DATA AVAILABLE

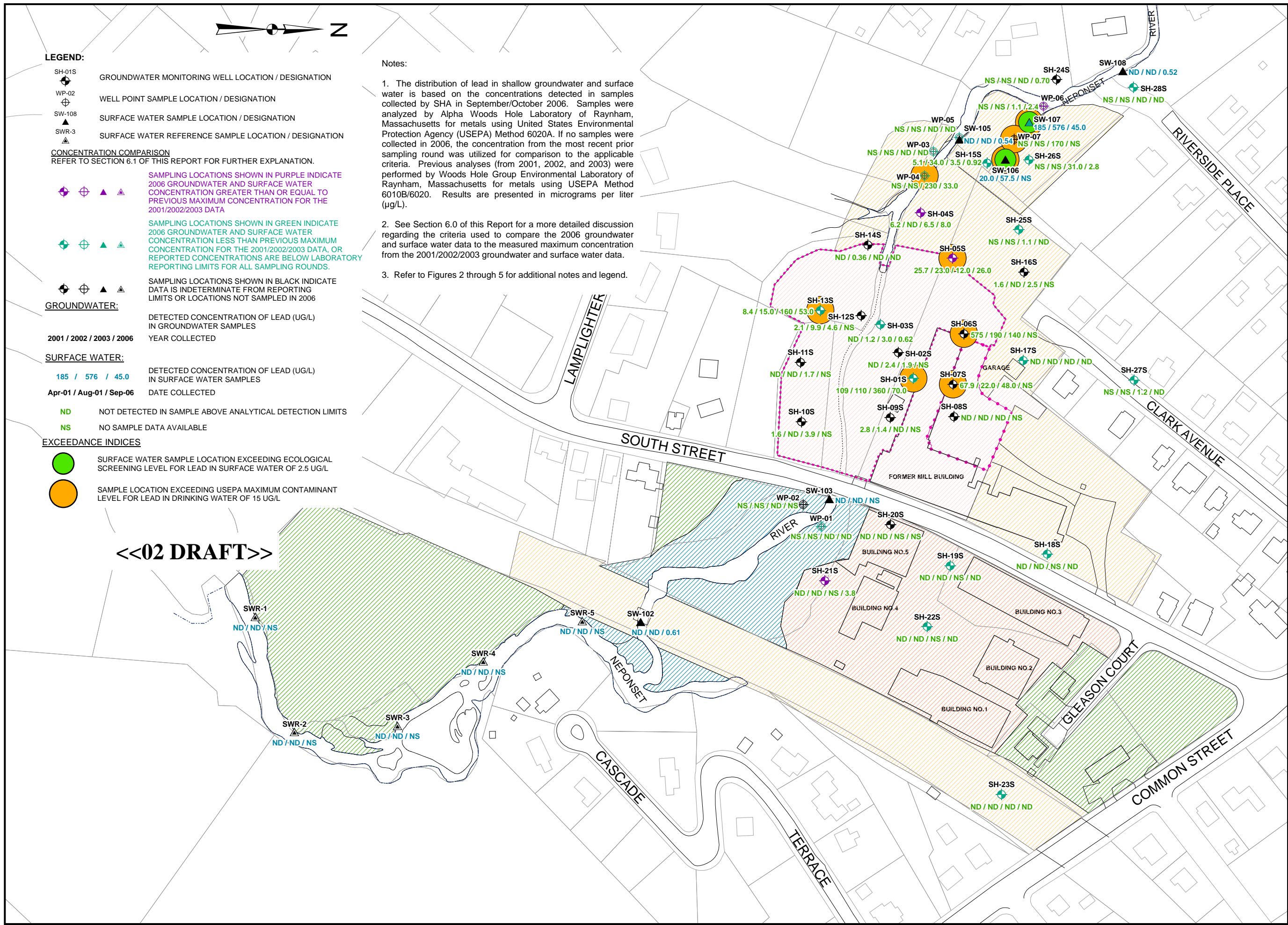
EXCEEDANCE INDICES

- SURFACE WATER SAMPLE LOCATION EXCEEDING ECOLOGICAL  
SCREENING LEVEL FOR LEAD IN SURFACE WATER OF 2.5 UG/L
- SAMPLE LOCATION EXCEEDING USEPA MAXIMUM CONTAMINANT  
LEVEL FOR LEAD IN DRINKING WATER OF 15 UG/L

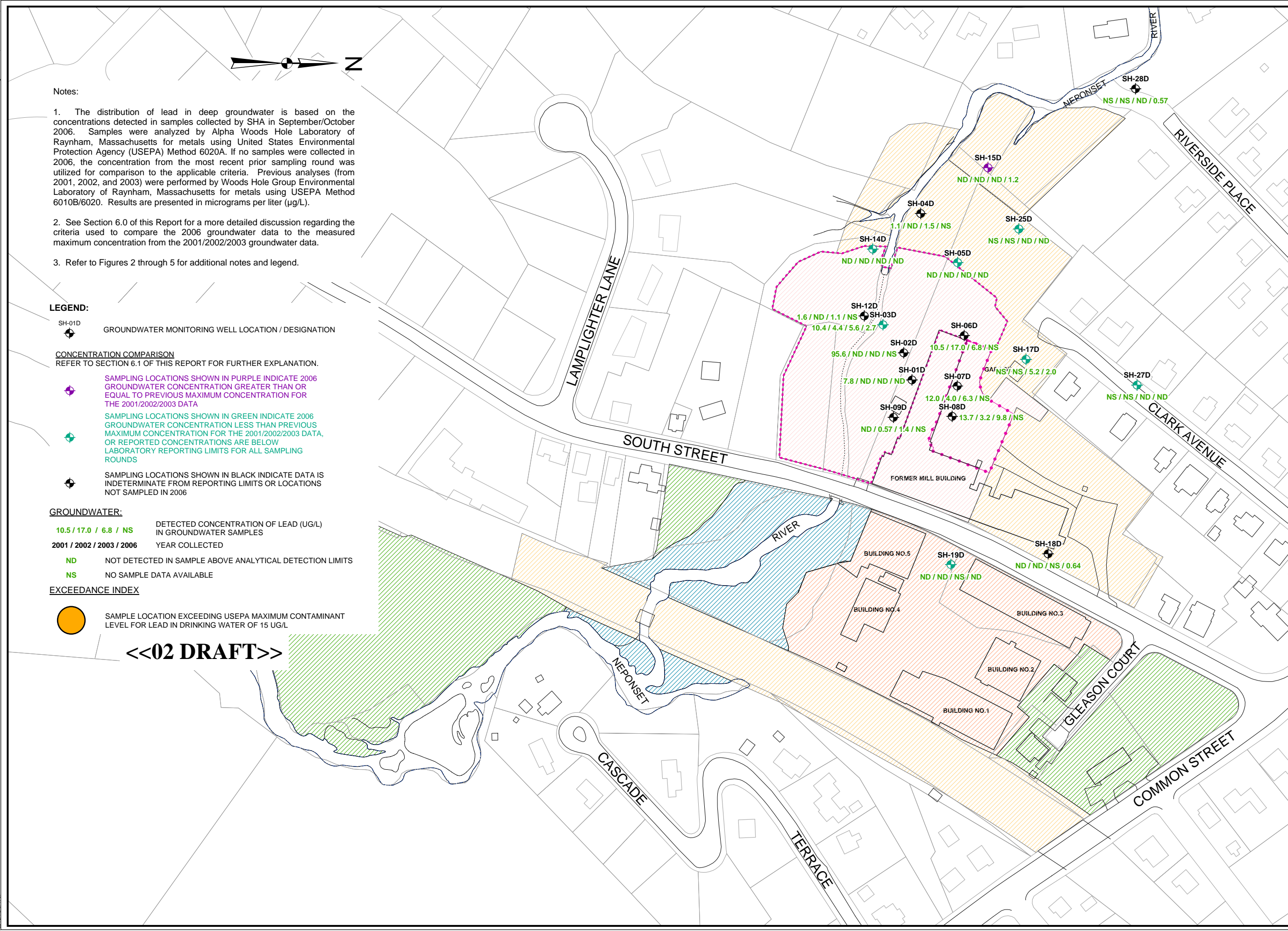
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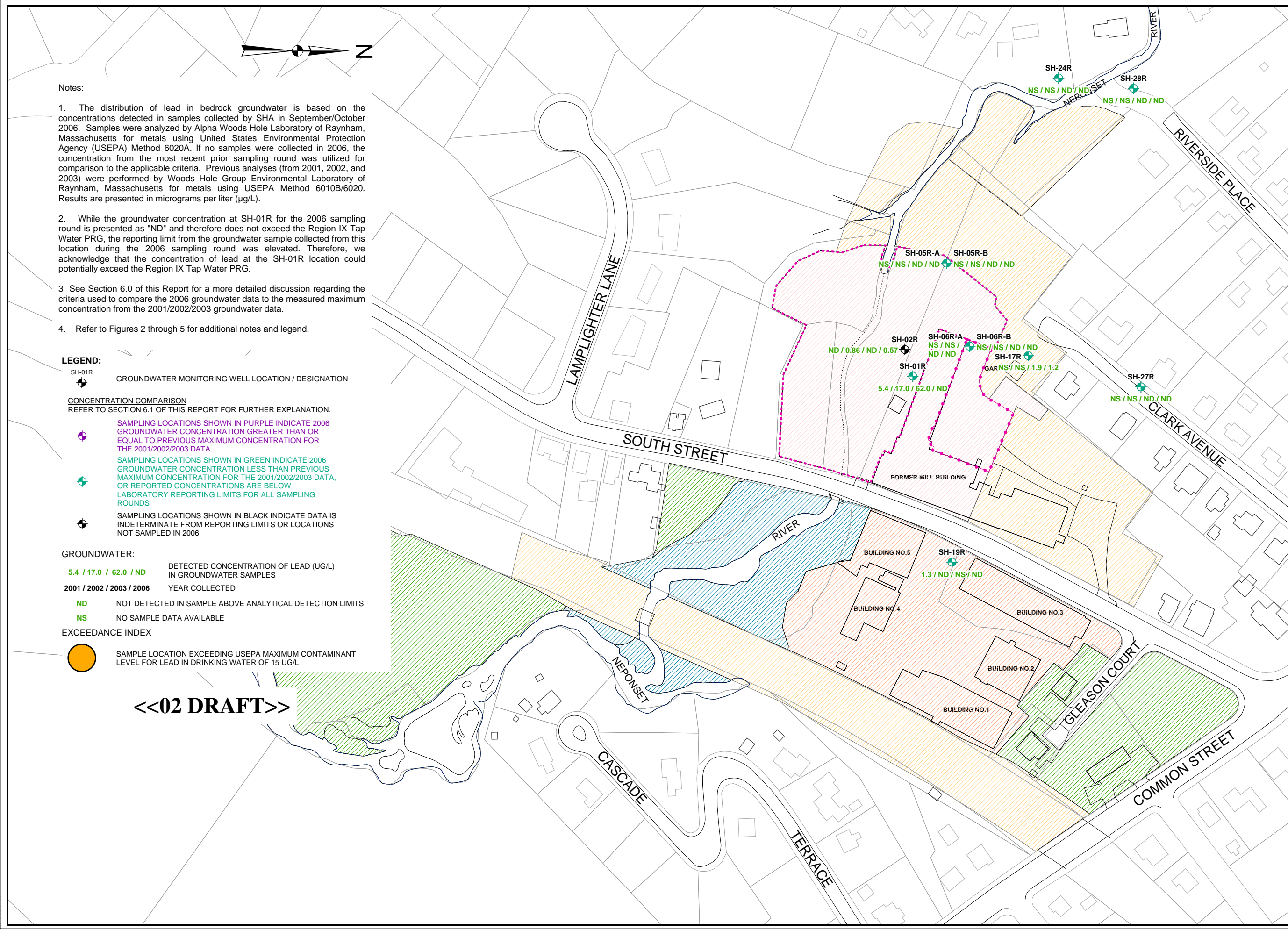
- The distribution of lead in shallow groundwater and surface water is based on the concentrations detected in samples collected by SHA in September/October 2006. Samples were analyzed by Alpha Woods Hole Laboratory of Raynham, Massachusetts for metals using United States Environmental Protection Agency (USEPA) Method 6020A. If no samples were collected in 2006, the concentration from the most recent prior sampling round was utilized for comparison to the applicable criteria. Previous analyses (from 2001, 2002, and 2003) were performed by Woods Hole Group Environmental Laboratory of Raynham, Massachusetts for metals using USEPA Method 6010B/6020. Results are presented in micrograms per liter (µg/L).
- See Section 6.0 of this Report for a more detailed discussion regarding the criteria used to compare the 2006 groundwater and surface water data to the measured maximum concentration from the 2001/2002/2003 groundwater and surface water data.
- Refer to Figures 2 through 5 for additional notes and legend.



<<02 DRAFT>>

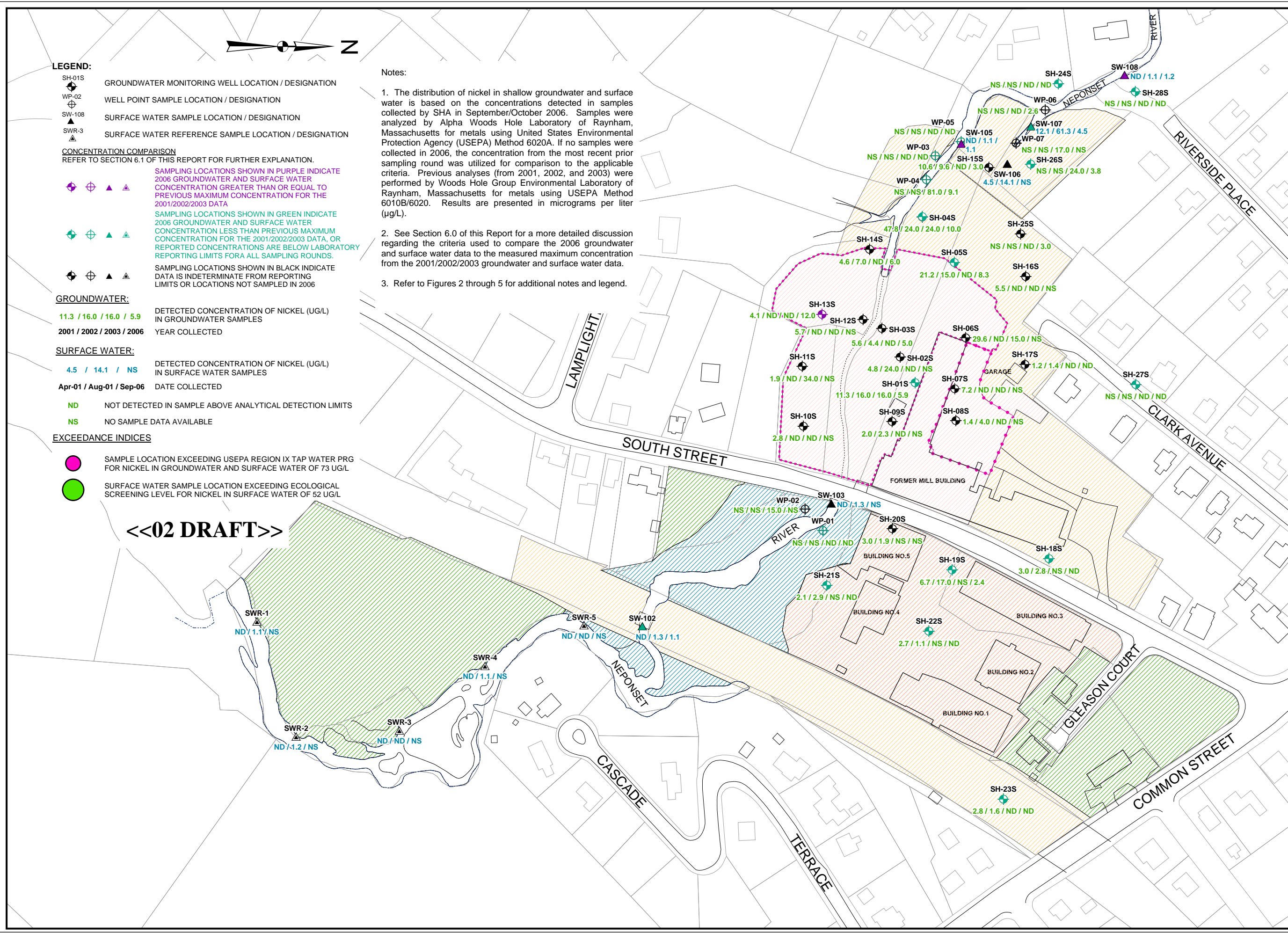




GRAPHICAL SCALE Feet 80 160 240		<b>SHA</b> ENGINEERS & SCIENTISTS
DRAWN BY: LAALIK DESIGNED BY: LAALIK CHECKED BY: TMM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07		
ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE IB-4 / PHASE IB-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		
DISTRIBUTION OF LEAD (UG/L) IN SHALLOW GROUNDWATER AND SURFACE WATER		
PROJECT NUMBER : 2032		
FIGURE NUMBER : 42		

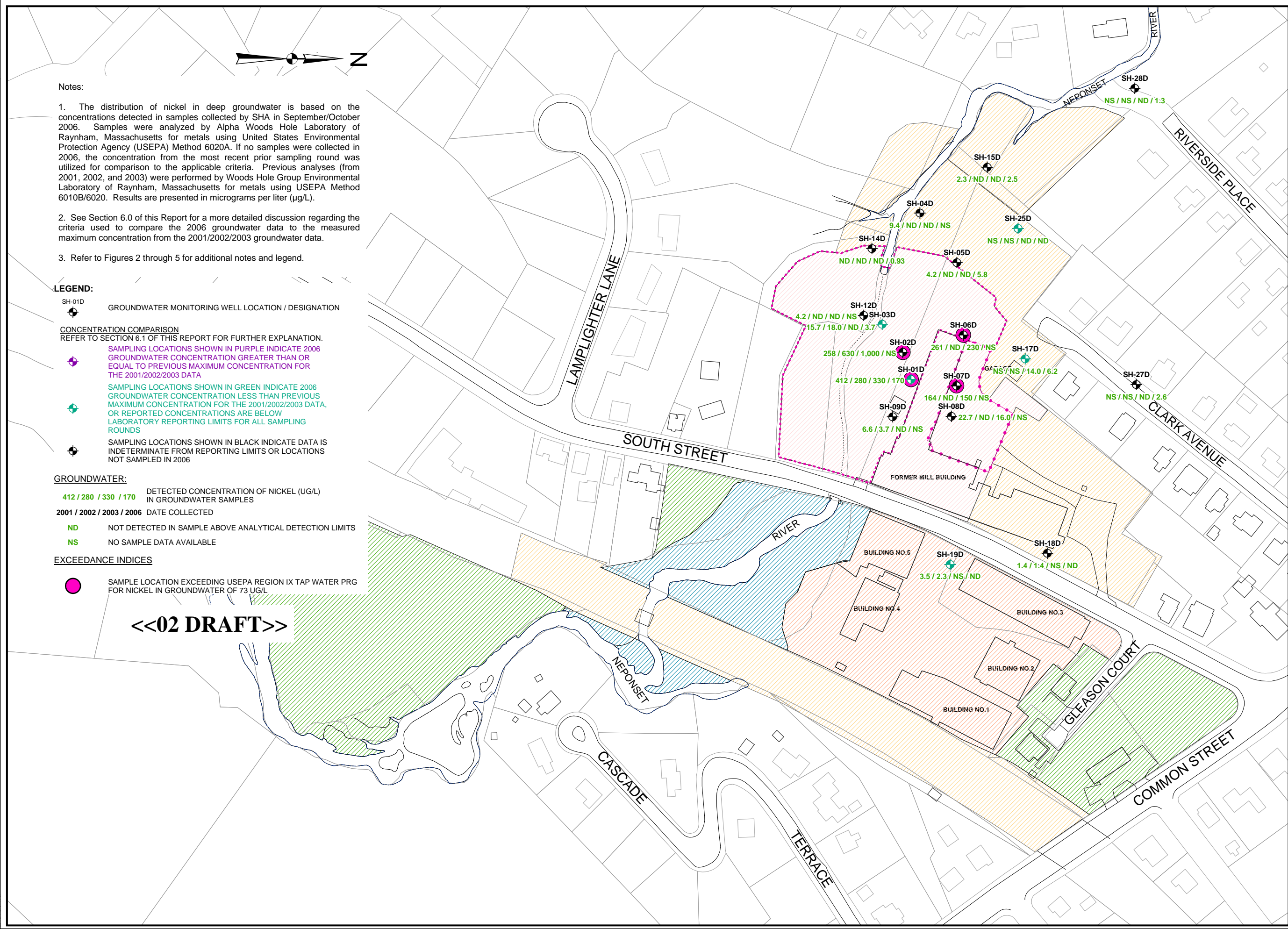
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ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		PROJECT NUMBER : 2032	
DISTRIBUTION OF LEAD (UG/L) IN BEDROCK GROUNDWATER		FIGURE NUMBER : 44	
DRAWN BY: LAALJK DESIGNED BY: LAALJK CHECKED BY: TMM/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR 07		GRAPHICAL SCALE  Feet 0 80 160 240	
 ENGINEERS • SCIENTISTS		NO. DATE DESCRIPTION BY	



ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT - PHASE 1B-4 / PHASE 1B-5 INVESTIGATIONS BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		PROJECT NUMBER : 2032		NO. DATE DESCRIPTION BY	
DISTRIBUTION OF NICKEL (UG/L) IN SHALLOW GROUNDWATER AND SURFACE WATER		DRAWN BY: LAALJK DESIGNED BY: LAALJK CHECKED BY: TMI/BAG REVIEWED BY: CLH/CAC PROJECT MGR: BAG PIC: CLH DATE: APR. 07		NO. DATE DESCRIPTION BY	
				ENGINEERS/SCIENTISTS	
FIGURE NUMBER : 45					

[illegible]